

THE
FARMER'S ASSISTANT;
OR THE
Complete Cattle-Doctor.

CONTAINING
RULES FOR FEEDING, BREEDING,
AND
PRESERVING CATTLE;

AND AN
EFFECTUAL METHOD OF CURING THE SEVERAL
DISEASES INCIDENT TO

BULLS.		CALVES.
OXEN.		SHEEP.
COWS.		LAMBS.

BY THOMAS HALE, ESQUIRE.

LONDON:
PRINTED FOR B. LAW, N^o 13. AVE-MARIA-LANE;
AND
W. PHORSON, BERWICK-UPON-TWEED.

Anno 1787.

THE
FARMER'S ASSISTANT
OF THE
Complete Cattle-Draught
CONTAINING

RULES FOR BREEDING, FEEDING
AND

PRESERVING CATTLE

THESE RULES ARE
THE RESULT OF A LONG
EXPERIENCE IN THE
BREEDING AND
FEEDING OF
CATTLE



THE PREFACE.

THE occasion of this Work, is to assist the Farmer and Country Gentleman, with Practical and Experimental Rules, collected by a Gentleman *deceased*. They contain observations perfixt to them, which he found of value relating to the subject in Authors, he had learnt by conversing with the most *intelligent Farmers*; and all he had discovered by an *active experience* of more than *thirty* years.

The value and use of Cattle, is well known to every *Gentleman Farmer*, † and it certainly is of indisputable consequence to the welfare of every Husbandman, to understand the nature of Breeding and Preserving of *Cattle*, and Curing their Diseases. The knowledge of this, is calculated for general Benefit. A particular discription is given of the different kinds and accidents to which Cattle are liable: and the *Diseases* to which they are *subject*, are in this Treatise laid down; with the most approved methods of *preventing* or *remedying* each.

† The perusal of Mr G. Culley's Treatise, upon the Breed of *Domestic Animals*, just Published, is well worth the Husbandman's attention.

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The INTRODUCTION.

Of Stocking the Farm.

WHEN the Farmer has made himself acquainted with the nature of every part of his ground; When he has fenced, planted and prepared it for his undertaking, it is then ready to receive his Cattle; part of which are to be fed upon its produce, and part employed also in the labours of tilling and improving it. These are necessarily a great Expence, and they are expected to produce and yield him a proportionable profit. This they are in their Nature qualified to do; but this profit will be greater or lesser, in proportion to his Skill in ordering and managing of them according to their several Natures.

From some of these he is to have labour from others Food, and articles of trade; and from all of them properly managed, he may have occasional, and as it were, accidental profits. The Ox, Cow, Calf, and Sheep, are to supply his Kitchen, and the Market; but the home consumption is not all the source of his profits: many of their parts and products are exported at a great price; and he will be able to make the more advantage of his stock, as he is the better inform'd of every one of these several particulars; and adapts his care to such of them as his circumstances and situation render the most immediately advantageous to him.

INTRODUCTION.

He is to consider his Cattle with respect to their Food; and its several kinds, this will lead him to enquire into their proper management in the Field, in his Yard, and in the Stall. The several most beneficial methods of regulating their Food, Litter, and standing, will be a very principal object of our attention, under their several heads in the succeeding Chapters.—In which, proceeding upon that sure and certain guide, experience, we have hope of leading him to a much more beneficial method of conducting himself in several respects than is generally known at this time.

In this place we are to consider the Husbandman as purchasing his stock, and disposing and employing it on his land; after which we are to proceed to the immediate labours to be employed upon it. The several products of his stock in hide, tallow, and the other articles are to be hereafter in their proper place; as also the diseases to which the several kinds may be incident; for we do not suppose him to purchase one kind labouring under distempers; or to intend the immediate slaughtering of the others. These things therefore are to be treated of hereafter, and in the present part of our undertaking, we are to consider the several creatures themselves; their service, breed, management in every respect; and the several methods whereby they may be render'd most beneficial to him while he keeps them, and most advantageous in the sale, when it is proper he should dispose of them.

INTRODUCTION.

He is to consider his Cattle with respect to their Food, and his several kinds, this will lead him to enquire into their proper management in the Field, in his Yard, and in the Stall. The several most essential methods of regulating their Food, Water, and Littering, will be a very principal object of our attention, under their several heads in the foregoing Chapter. — In which proceeding upon each part and certain guide, experience, we have hope of forming him to such more essential methods of conducting himself in several respects than is generally known at this time.

In this place we are to consider the husband as purchasing his stock, and disposing and employing it on his land, since which we are to proceed to the immediate labour to be employed in it. The physical products of his stock are to be sold, and the articles are to be converted in their proper place, as also the different kinds of the several kinds may be sold, but we do not suppose him to purchase one kind labouring under different, or to convert the immediate labouring of the other into the immediate labouring of his own, and in the present part of our observations, we are to consider the several creatures themselves; their service, breed, management in every respect, and the several methods which are to be used in the management of them, which is to be considered as a part of the husband's stock, and as a part of the husband's stock.

THE
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 OR,
 THE COMPLETE
 CATTLE DOCTOR.

C A A P. I

Of the Bull, and his Kind.

UNDER this general head are included, the Bull, Cow, Ox, and Calf, each of them a very considerable article in the husbandman's profession; and though all of one kind, yet for clearness sake, to be treated of separately and distinctly. The Cow is naturally consider'd as the principal, though the Female, because she is the most universally useful to the Farmer; but before we enter upon her nature and qualities, we shall treat of the Bull in his natural condition, and in that of the Ox; as a knowledge of them will best lead to the other.

In other countries there are Bulls of several kinds and forms, under the name of Buffaloes, and the like distinctions: but in England we have properly only one kind.

B

The Bulls of England, however, tho' they are of the same kind, differ in their size, and other lesser circumstances, according to the counties from whence they came, or in which they are bred. The different parts of this kingdom afford so different pasturage and support for cattle, that they are establish'd in them under certain distinctions; and when they are brought into others, are called after the name of the place whence they came.——Thus the Lancashire breed is large, the Welch are smaller, and the Scotch least of all. In Staffordshire they are commonly black, and in Gloucestershire red; and they have the like differences in other counties.

The husbandman who is about to stock his farm, should be acquainted in general with the several breeds, that he may be able to suit his purchase to his land.

The larger and finer kinds are bred where there is good nourishment, and they require the same wherever they are kept, or they will decline: and, on the other hand, the poorer and smaller kinds which are used to hard fare, will thrive and fatten upon a moderate land, because it is richer than what was naturally their own.

Every husbandman ought to have one of these three considerations principally in view, in stocking his land with this kind, the using them principally for breed, for milk, or for work; and according to which of these three is his principal aim, he is to make his purchase;

one breed being fitter for one of these uses, and another for another.

He is also to consider the degree of richness of his pastures, that he may suit the breed accordingly to that also. Thus if his ground be perfectly rich, he should buy the largest and finest cattle, the Derbyshire, Staffordshire, or Lancashire kind; if poorer he should purchase the Anglesea or Welch, for they will thrive and fatten upon very moderate ground: and in the same manner he should suit his cattle to the nature and qualities of his pasture, be they whatsoever they will.

Whatever breed the husbandman chuses, he is to take care that he keep entirely to it; that is, the Bull and Cows are to be all of the same kind; for it is a general and very true observation, that a mix'd race does not succeed so well in any place, as where they are all of a sort.

Having premis'd thus much of the several Breeds of these cattle, on which head we shall enlarge farther under the consideration of each particular kind in the succeeding Chapters, we shall here proceed to speak of the Bull in general: not as any particular kind, but of whatever; for the marks of a good Bull, are the same in general in all the breeds.

In the choice of his Bull let the husbandman guide himself according to the following directions. Let his forehead be broad, and the hair upon it well frizzled and turned in small curls. Let his countenance be sharp, his eyes large and full, the blacker the better. Let his horns

be moderately long. His neck thick and fleshy; and his body long and large. His breast should be big, his back strait and flat, his buttocks large and square, and his thighs round. His legs should be strait, his joints short, and his hair should lie smooth and even upon his body. This sort of Bull answers the best in every respect for breed. The Oxen from him are always inclin'd to be large and stout; and are fit for draught as well as feeding.

Those who are very curious in their breed, observe that the ears of the Bull be rough within, that his nostrils be wide, and his dewlap thin, long and hairy; that his tail stand high, his knees large and round, and his hoofs long and hollow. These are marks of less consequence, tho' some stand upon them with great strictness: a very good Bull may be without them; or without any thing particular in any of these parts; but if he answer the discription in all points it is so much the better. The others before deliver'd are, however, of great consequence, and the husbandman's interest requires him to observe them so strictly, that he should never admit a Bull among his cattle, that does not answer to them.

The breed in this, as in most other kinds, partake more of the nature of the Female than the Male; yet there is so much depends upon the Male, especially in the form of the Ox, and most particularly when they breed that creature to labour; that the owner can never be too particular in his examination of the Bull, which is to be the father of his breed.

The use of the Bull is commonly understood to be only in the service of the Cows in propagation: and accordingly in most places, he is suffered to run loose, living a quiet life, with no care but his pleasures. This, however, is not necessary. The Bull is an animal of strength as well as the Ox, and there is no reason why he should not be employ'd in the same manner. This is not universally practis'd, but by an account we have receiv'd from a very worthy correspondent on these subjects, who writes nothing but what he has try'd, it is very plain that it may be introduced any where with advantage.

The diversion of running and baiting the Bull at certain times of the year is very old, and has been practis'd in many parts of the world, and in most of them at the same season.—We seem to have had it from the Spainards, whose Bull fights are famous; and they from the Romans, as the Romans had it from the Greeks. Julius Cæsar brought it to Rome, and he professedly learned it of the Theffalians.—In Greece, Rome, Spain, and England, the season for it has always been in the Month of August.

The Bull is often mischievous; but it is in a great measure owing to his being kept idle.—Many a life is lost in England by this creature: but probably if it should ever become a custom to train them to labour like other animals, there would be an end of that mischief. The Bull is the only creature of such size and power that is left to himself. If he were worked, partly the labour, and partly the being accustomed to

mankind by their tending of him, would tame him, and make him as harmless as Horses and other animals. They are often naturally vicious as well as the Bull; but it is their being continually in the way of management that breaks them.

C H A P. II.

Of the Ox.

THE naturalists would smile at our treating of the Bull in one Chapter, and the Ox in another; but we know as well as he they are the same creature under different accidents.— Their use to the husbandman is, however, so different, that in a work of this kind we are very well justified in treating of them in this separate manner.

If the husbandman's land be rich, let him stock it with the largest Oxen that can be raised, for they are much the most profitable.

The Yorkshire Oxen are in general, black all over, and they are very large, firm and valuable kind in every respect. There are none that exceed them for labour, and few feed like them. The Oxen of Staffordshire, and many of the neighbouring counties, are also of this kind. The Oxen of Lincolnshire are in general red and white: they are very bulky, and

equal to any in value. The Oxen of Somersetshire, and some of the adjoining counties, are naturally red. These are also a very fine, large, and valuable breed.

If the husbandman intend to breed his Oxen to draught and labour, the black Yorkshire breed is the best: if for market only. Lincolnshire are preferable: the red Somersetshire Ox is indifferent to either use, and is an excellent kind.

Of all these the Lincolnshire breed require the richest pasture: but none of them will thrive, or come to their perfection, unless they have very good feeding.

The reader is not to suppose from what is here said, that all the Oxen of Yorkshire are black, all those of Gloucestershire and Somersetshire red, or all the Lincolnshire Oxen pyed.

These are the genuine and proper breed of each of those several counties; but the graziers have mix'd them more or less in each county, tho' 'tis best both for beauty and service to keep them separate; their kinds and dispositions being in each particular, as well as the colour.

The husbandman who intends to stock his land with either of these kinds, must at first buy, but he is afterwards to breed; and in order to keep up the sort with certainty, he must take care to have a right Bull, and well sized Cows, both of the same breed; and from this flock, with a sufficiency of pasturage rich enough for their support, he will not fail to have either breed in any county: perhaps better

than they are to be found in the places themselves, as they do not take due care there, but bring in one kind among another.

The Oxen should be tall, full bodied, short jointed, and well put together in every part, so that one sees their strength. Their hair should be fine, and lie smooth, for that betokens health, and a good kind.

The strength of the Ox is very great, and he has patience to endure fatigue, but he is slow, and must not be put beyond his natural pace. He will not work easily or freely, if this be attempted, and what is worse, fretting and hurrying throws him into distempers.

'Tis but in some particular parts of England they now breed their Oxen to labour, but it is very profitable. In these places the husbandman cannot be too much warn'd against his hurrying them in their employments; for he should consider that they are to be fed as well as work'd; and while he makes them thus liable to distempers, he takes them off from the one, and makes them incapable of the other.

When Oxen are to be train'd to labour, they must be first put to work at three years old, but they must be brought to it gently, and, by degrees, in the manner of a young Horse; for if they be push'd or work'd too hard at this time, they are spoil'd for ever.

Great care must be taken to match such well as are to draw together, for otherwise they draw unequally, and spoil both the work and one another.

In this case of matching them, regard must be had to three things; their height, their strength, and their spirit: for some are tall that have not much strength; and others have a great deal of power that are sluggish.

In general they are very tractable and gentle, but regard must be had to their several natures, for they will not be forced out of them by any usage; and they may be greatly injur'd in the endeavour.

Of all the kinds the pyed Lincolnshire Ox is the fittest for labour.—He is naturally long bodied, and till put up to feed, is less fleshy than any of the other good breeds; though he takes to fattening very readily with rest, and a good pasture.

When the young Oxen are first put to work, great deal of care must be taken not to overheat or fatigue them. They must be suffered to rest in the middle of the day in hot weather, and the servant should give them some hay, which will support them in the new fatigue of their labour, much better than grass.—They must be well fed during the whole time of their labouring, for they will not do much if they be not kept in spirits by good nourishment; but in this let the husbandman understand moderation: for there is difference between feeding them for strength, and for fattening.

An Ox for labour must neither be bare, nor must be too fat; in the first case he will be weak and in the other he will be lazy. They should be treated gently, for they do not understand blows and hard usage, and may easier be

beaten into sicknesses and disorders, than into labour.

In this way an Ox may very well be kept to work seven or eight years, that is, till between ten and eleven years old; and in that time he will do the owner an incredible deal of business, provided he thus understand how to manage him, for it all depends upon that; otherwise he will be as stubborn as an Ass, and will not be fit half this time for service.

Sometimes a young Ox will prove very stubborn, vicious and unruly; but this, when enquir'd into, will be found owing to some bad usage at setting out, for the Ox has nothing of that bad disposition in his nature. When this happens he must be kept hungry; and when he has fasted long enough, he must be made to eat out of the hand: when he is brought to his labour, he must be tied with a rope; and at any time when he grows faulty, he must be cherished, and fed with a mouthful of hay by hand; thus bringing him by soft means to quietness, and a readiness in performing his business; for nothing else will do with this creature.

For the breaking a young Ox to the field, no way is so well as to single out one of the tamest of the old ones, that is of its own size; and yoke them together. Let them be put to some slight work, and suffer'd to do it easily and slowly: they will thus draw equally, and the young beast will become perfectly familiar to it.—

They will be apt to get into too slow a gait at first, but by degrees they must be spirited to be a little brisker in their pace; and after half

dozen times going out with this quiet beast, the young one must be coupled with an Ox of more spirit, that will learn him to go quicker. Thus he is to have his companion chang'd from time to time, till in the first month or six weeks of his labour, he gets to draw with the briskest of the stock.

This is the only way to get the Ox to his speed; for at best it is not great, nor will he be brought to it by force.

The advantages of labouring with Oxen are so great, that it is wonderful the practice does not extend farther. The Ox of eleven years old, when he is unfit for labour any longer, may be fatten'd as well as at any other time; and in the same manner if he fall lame, or by any other accident be spoil'd for labour, at whatever age that happen, he may then be fed up for sale.

In this the Ox has a great advantage over the horse, which, when aged, or spoiled by accidents, is good for nothing, and becomes an entire loss, and often a very great one to the farmer.

The food of the Horse is also a very expensive article to the husbandman, but that of Oxen is cheap. They require no oats. They are very little liable to diseases, whereas one is never secure of a Horse at all. But though the Ox does not require so expensive food as the Horse, yet such as he eats must be good in its kind, and he must not be stinted. He must always have good grafs to go to, and good hay in winter, else he will be of little service: for

though he must not be fatten'd in his time of working, yet if he be not kept well fed, and in good spirits, he is worth nothing.

The greatest use of the Ox in the way of labour, is that of plowing; and 'tis that for which they are suited by nature.——They will work at this in the toughest and heaviest grounds as well as Horses, and as much in a day, They do not serve so well for drawing of carts and waggons; and are not fit to be used much in places where the roads are good.

In most Counties the farmer would do well to train up some of his Oxen for draught, tho' it is better not to depend upon them entirely for that service, in any. We have shewn for what they are most, and for what they are least fitted. Every farmer has occasion both for carting and plowing; and the Horses are in general fittest for the former, and the Oxen most profitable for the latter: Therefore when there are more Teams than one kept, some should be of Horses, and others of Oxen, proportioning the number of either to the nature of the service, and of the roads and the ground. The farmer who keeps two Teams only, will almost always find it his interest to have one of them of Oxen, and the other of Horses.

In clayey Lands, the Oxen are most useful; and in chalky Countries the least. The chalk soon spoiling their feet.

It is a custom in some places where Oxen are used for draught, to yoke them by the horns, but this is awkward and troublesome. It is left off in many places where it was once used;

and ought to be in all. The common way of yoking them together by the neck and breast is vastly preferable.

Whenever the Farmer comes to a resolution of keeping Oxen for labour, let him at the same time provide for a proper supply of them; and see that it be rather too much than too little, for it will always be more to his profit to sell what he does not want, than to buy for his necessary uses. To this end he should rear at least two Oxen and two Cow Calves, every year to keep up his stock; and put his old, or injur'd beasts to fatten, and supply their places from this breed as occasion requires; for an Ox, as before said, whether put out of the Team for age or injuries, will fatten as well as at any other time, and will bring a good price at market; and afford as good beef as any other that had not been work'd.

When the Husbandman buys in Cattle to fatten, it should be either in Spring, or toward the beginning of October. Those Oxen which are bought in early in Spring will, with proper care, be fat in July, August, or September, according to the goodness of the Soil, and the manner of feeding them; and according to the condition wherein they were bought. An Ox that is very forward when bought in, and is turned into a very rich pasture, will be fit for market in ten weeks; but there is no need that every Ox that is bought for this purpose, should be in this forward way; or that every one should be hasten'd to a market condition.

in that hurry. The care of the Husbandman in this should be, to suit his endeavours to the nature of his grounds, and to the best demand for the Cattle: he may keep on fattening the whole Summer months, and answer his purpose better both for the market, and for having the best service out of his Land, than if he hasten'd up all that he bought, or bought only very forward ones.

Those Oxen that are bought in about the beginning of October, will in general be fit for sale early in the following Spring. There requires some management in this article of the Husbandman's business, for without it he may lose by his industry, but with due care he will find a sufficient profit in this way. These Cattle being for sale early in Spring, will always fetch a good price; but the Winter feeding of them may easily run away with what should be his profit.

The method is to forward these in flesh, before the Winter sets in hard; and then to take care only to keep them up in flesh during the hard time, with hay or turneps.

They may be thus kept in a condition for market whenever it is worth while to sell them; and be sure of fattening up with great ease very early in Spring, to a certain advantage.

Another way of buying Cattle in the beginning of October, to great advantage, is to purchase lean young Oxen which will pay for their Winter keeping by their growth, and be ready to fatten up early in Spring, to the fairest and fullest profit.

Another very good time of buying Oxen for feeding is in August, or the beginning of September. These should be got forward as soon as may be, by putting them into very rich pastures; and they will be ready for the Winter sale.

This is the best method the Husbandman can take, who has rich and fine pasture Ground; for no other will support the large and valuable breed of these Oxen. But he who happens not to have this advantage, is not altogether to decline thus much of the grazing business, which to the other proves so very advantageous.

Therefore he who has but moderately good pasturage, and is inclined to deal this way, should set about in a different manner.— Let him buy in a number of young Welch Heifers, instead of Oxen, in August or September, and put them into the best of his ordinary pasturages. He is to take his chance whether these prove with Calf or not, but either way they will answer his purpose.

If they prove with Calf his business is to keep them till Spring and then he will sell them to a good advantage, with a Calf by their side, for the Dairy. If they do not prove with Calf they will presently begin to fatten upon his ground, which, though poor, is yet very fine in comparison of what they have been used to: and he will be able to sell them out at a very good account at Christmas or in Spring; at both which times meat is dear, and consequently Cattle fetch a price.

These Heifers will, to the Husbandman thus situated, answer, in some measure, the purposes of Oxen; and he is not to complain they do not bring altogether such a price; because neither the Cattle themselves, nor their keeping, have cost him so much as in the other instance. Such Land being cheaper than the rich and fine pasture Ground, on which the large Oxen may be fattened.

But there is this to be consider'd, that the advantage will be the greater, in proportion as the Farmer has the convenience of hay, or turneps, which are the two foods for Winter fattening of Cattle; and in proportion to his nearness to some large City, where the demand and the price will answer to the expensive feeding of hay. About great towns they may afford to let a beast eat a couple of load of hay in a Winter, because the demand is certain, and the price good: but this will not do in remote places.

Let the Husbandman who buys Cattle for fattening, take great care in the choice, for on that will depend a large share of his success.— Let him examine their bulk and shape, and the forwardness they are in at the time, and after that proportion the goodness of the pasture to their kind.

Those that are intended to be kept up for a Winter, or early Spring market, must be turned out in September into the Rowens, till the wether become severe by much Snow or a very hard Frost; and till this time they will not need any fodder.

Upon the coming in of the hard weather they must have some hay regularly every morning and evening, which must be proportioned to what the Ground still affords. The more they find there the less they want of the supply; and the less there is, the more hay must be each time given them.

The Frosts have an effect upon grass, especially upon the worst sorts, to sweeten it. The lower grass which the Cattle had left untouched for a great while, becomes palatable to them after two or three nights good Frost, with a large white Ryme. They will eat this greedily; and it will make hay the less necessary, till the Snow covers it and they cannot get at it. 'Tis at these times the foddering is to be largest and best, for without a due care they will, in a little time, lose all the advantage they had made in many weeks.

For those Oxen that were bought in lean, and are not got into any great degree of flesh by the beginning of the hard season, Straw, will do instead of hay: and the husbandman must begin with barley straw, and then come to oat straw, both which are very good food for Cattle in this condition; and will keep them as they are, and in a readiness for any farther improvement, when it comes upon easy terms.

Toward the end of Winter the whole product of the ground that has been thus fed, will be eaten up, and then the Oxen are to be taken into the yard. If the Husbandman have Oxen in two conditions, the one that he feeds with

hay, and the other with straw, they must be put up seperate; and their food must be put in racks for them.

The Farmer often complains that his Cattle will not eat their fodder, when they are taken up into the yard, though they did freely when it was given them in the field. But this is generally owing to the folly of giving them too much at a time. I have often seen an Ox eat heartily and freely out of the Crib for a time, till when he had often breath'd upon it, what was left became quite disagreeable to him.

This is a delicacy in the nature of the Animal, and nothing can break him of it; but all the inconvenience of it is easily prevented, by giving these Cattle a little at a time, and often. This being, for all reasons, the best way of foddering all Cattle in the yard.

Let the Husbandman take care that his yard be well shelter'd, and kept dry. Let there be straw enough scattered about it, that his Cattle may lie sweet and warm, this will greatly assist in keeping them in good case; and he need not grudge the expence, for what the straw is worth will be many times over made up to him in dung.—Their trampling this litter, with their dung and urine, converts the whole into a very rich manure; and the quantity becomes so considerable, that it is an article of great consequence.

When Oxen are put to be fattened on Land, they may be turned in either alone or with Horses; or they may be put into the pastures first, and the Horses afterwards. Which ever way is used let the Husbandman take care of

the time of turning in his Oxen. Many think they ought to let the grass be very well grown before they put them to feed upon it; but they are greatly mistaken. There is not a greater disadvantage the Farmer can lie under, in this way, than the having his pastures too high grown before he puts the beasts into them.

The Ox is a nice creature, and does not love a rank grass. In this case they only nip the tops, and the remainder rots upon the ground. — When grass is grown too high, in Autumn especially, it becomes sower, and the Cattle will not eat it freely before the Frost has sweeten'd it to their taste.

If it happen the Farmer have at this season of the year, a pasture ground of tall grass, the best method he can follow is this. — Let him first turn in his Oxen in a proper number, and they will eat off the tops; but as they will meddle with no more of it, when this is done they should be removed out of it. Horses are then to be turned in, who, not being so nice as the Ox, will eat it down lower; and after these he may feed it with Sheep, which will still find a great deal for their purpose, that the Ox and the Horse had both left.

If the pastures in the Farmer's grounds, be all of nearly the same kind, and all of a proper grass for feeding of his Oxen, still let him frequently change their place, removing them from one of the closes to another. This answers a double purpose, it gives the Cattle a variety of food; and it gives every piece of the ground

rest at times to shoot afresh after their eating.— Their taste is so nice as to distinguish the growth where it appears to our eye all the same; and therefore they will be pleased with removing from one ground to another; and each close will shoot up with spirit and freshness from their cropping of it, when it is quiet for a little time from the treading of their feet.

Let the Husbandman always purchase as large a breed as his ground will maintain; and by this management he will find it support a better sort than perhaps he might imagine it could, or than it in reality would do in the hands of a less skilful person. The size of the Ox is a vast article, for it makes great addition both in the flesh and tallow.

Let the Ox have a smooth forehead and a deep belly, if he be intended for fattening.— The strength of his joints is more the matter when he is first designed for labour.

In buying Oxen for fattening preference is to be given to the young; but if they be somewhat older let the Farmer see that they are healthful. Let him feed up his own breed for slaughter, if he uses their labour till the best time of their working is over as before directed; but let him not bring them in for fattening at that age, without he bargain accordingly.

It is always a good sign of health that an Ox frequently licks himself. It is a proof that he is in good humour with himself, and in spirit; for when they grow sickly, dull, and drowsy, they utterly neglect themselves, and their coat

becomes rough, and stares for want of this little care of their own, which keeps it in order.

Nevertheless, every thing is to be understood within the bounds of moderation. This licking of himself, which is in general a sign of health in the Ox, may be a disease. They will sometimes lick till they cannot eat, for they swallow a great many of the hairs they lick off, and they will sometimes get together into a kind of ball in the stomach, which will impair the creature's health. In this case the owner must, at times, wash the Ox with a strong decoction of Wormwood, which is a taste it abhors; and finding this bitterness on the skin, it will be cur'd of licking; as Children are wean'd by rubbing the nipple with Aloes.

Some, for this purpose, cover the creature with his own dung, but this is a filthy way. As the licking is always done for the sake of cleanliness, the Ox will often tire himself, from day to day, with endeavouring to get this off; or else he will utterly neglect himself, which will prove of as bad consequence.

I am a great friend to the easy and cheap practices of the common Farmers, but they are not always right. This is often hurtful.

In examining how the Ox proceeds in fattening, the surest way is to feel the hindermost rib. If all be soft and loose about that, 'tis a proof that the creature is getting into good flesh. The part behind the shoulders in an Ox, and the navel of a Cow, are the parts to be examined, to know how they encrease in tallow.

Finally, there is one thing I shall recommend to the Husbandman very strongly, from my own experience, as excellent toward the fattening of Cattle, and this is the bleeding of them at proper times. This should be done once at least, and commonly it may be done twice with great benefit during their feeding.

The method I have always observed is this in the Cattle I have bought, in Spring always to bleed them as soon as I put them to pasture, which makes them take to fattening directly. In those I buy in Autumn I follow the same method of bleeding, at the time of turning into good pasture; which I find not only help their fattening, but prevent disorders. This is all I do with those intended for the Winter market; but for such as were bought lean to be kept for growing in Winter, and fattened up in Spring, I always have them blooded twice, once when they are brought in, and a second time early in Spring, when they are going into the pasture for fattening.

My neighbours allow that my beasts are less liable to sicknesses than any about the place; and I attribute it to nothing so much as these bleedings; notwithstanding that something is to be allowed for the care I take in other articles, which is greater than most others.

For those Cattle which I buy in, lean in Autumn, for the Spring market, I always mix straw with the hay I give them, by way of fodder. I find barley straw does better for this use than any other; and the quantity I allow is one

third part of the whole. This answers for those beasts full as well as hay alone, and in the affairs of Husbandry every little saving is to be regarded; for all comes to something.

C H A P. II.

Of the Cow.

WE have occasionally mentioned the Cow in treating of the Ox, as sometimes it is convenient to breed her in the place of that kind; but we now come to consider her in another light, in which she is the most valuable and useful part of the Farmer's stock; this is as a Milch Cow, and with her Calf.

The several products made from her Milk will come to be considered hereafter in their place. At present we are to treat of the creature herself, for we are, in this place, speaking of the Husbandman's stocking of his farm; not entering into every article that may be produced from the several kinds, of which properly hereafter.

The Cow being chiefly intended for the service of the Dairy, a great deal of care is to be taken in the purchasing a right kind, for there is a vast difference in the profit of this Animal, according to the breed from which she comes.

They have large Cows in all those Counties where they breed large Oxen, mentioned in the former Chapter, but the sizce is not all that the Husbandman is to consider: the quantity of Milk is not always proportioned to the bigness of the beast; and that is to be his chief regard.

The Welch and Scotch Cows will do upon the poorest pastures. They will suit some who cannot rise to the price of the better kinds; and they will yield a very good quantity of Milk if rightly managed; but the fine kinds are the Dutch and Alderney Cows, these are very like one another in shape, and in their goodness, but the Alderney Cow is preferable, because she is hardier.

The fine Dutch breed have long legs, short horns, and a full body. They are to be had in Kent and Suffex, and some other places where they are still carefully kept up without mixture in colour, and where they will yield two gallons at a milking: but in order to this they require great attendance, and the best of food.

The Alderney Cow is like the Dutch in the shortness of her horns, but she is somewhat stronger built, and is not quite so tender. She requires rich feeding; but is not liable to so many accidents as the other, and is equal to her in the quantity and natural goodness of her milk.

Of which every kind the Husbandman determines to have his Cows, let him take the following rules for his direction in their choice. Let them have the forehead broad and open; the eyes large and full, and, excepting only the

Dutch and Alderney breeds, which are naturally short horned, let the horns be large, clean and fair.

They have, in some parts of Buckinghamshire also, a kind that have no horns, they call these the polled breed. They are to be chosen principally by the breadth of the forehead; for their eyes are less full by nature, than those of many of the other kinds.

Of whatever breed your Cow be let her neck be long and thin; her belly deep and large.— Let her thighs be thick, her legs round and well-shaped, and her feet large.—Above all things see that she have a large, good, white, and clean looking udder, with four well-grown teats.

Of whatever breed the Cows be, let the Bull be of the same. And let them generally be of as large a kind as the pastures will support in health and strength. But it is better to have a Cow of a smaller kind well fed; than one of the best breed in the World starv'd.

It is a general observation among the Farmers, that the red Cow gives the best milk, and the black Cow is best for her Calf, which is usually fairer and healthier than that of the red.— But this is not founded on fact, it is rather fancy. The red Cows milk has been long famous; and a Calf of a black Cow is accounted good to a Proverb; but the breed is the thing of consequence, not the colour.

The Cow that gives milk longest is the most profitable to the Husbandman; and from what

I have observed, this is most the case with those which are neither very young, nor advanced into years.

The best time for them to calve is in the beginning of April, this is most favourable both for the Calf and for the Dairy.

The Husbandman should take care to know rightly the time of his Cows being to calve; and three weeks before that, he is to feed her better than usual. She should be put into a rich pasture, if the season be so advanced that there is a good growth of grass any where; if not she must be well fed with good hay. And this will be returned many-fold in the profits of her milk, which will rise in proportion to the care that is taken to feed her well just at this time.

When she has calv'd let her be kept that day and night in the house, and let the water be a little warm'd that she drinks.—She is to be turn'd out the next day, in the heat of the Sun if well; but she should be taken in at nights for two or three days following, and some water a little warm'd should be given her before she is turn'd out in the morning.

In hard weather in the Winter, Cows that give a good deal of milk, should be fed in proportion; and that should be fine hay every morning and evening, when the ground is cover'd with Snow; and at other times once a day as there may be found occasion.

When a Cow does not yield milk enough at these seasons, to pay the price of a good feeding with hay, let the fodder be hay and straw mix-

ed; or if still worse, let it be straw alone. But then it must be oat straw, for barley straw has a particular effect in drying up a Cow's milk; and if given to her in this condition, because the quantity she yielded would not pay for better fodder, the consequence would be that she would yield none after a very few days feeding.

When the Farmer has a scarcity of hay, or the price is very high, let him give the Cows which he desires to keep in milk, malt dust, scalded with boiling water.——The malt dust swells up vastly with the water; and when it has stood to be almost cold, it is to be given the Cow in the manner of a mash.

If the Cow have this at times, she may be fed with any kind of straw; for this breeds milk so well, that the other food will not be able to dry it up while the creature has the advantage of its assistance at the same time.

About London they feed their Cows very much with grains. This is a diet that causes them to yield a vast deal of milk; but it gives it an ill taste; and is unhealthful for the Cow, subjecting her to many disorders. The malt dust is as cheap, and answers the same purpose in a much smaller quantity, and without the danger of illness, or hurting the milk. It may be bought at four-pence a bushel, and it swells so much in the wetting, that this quantity will very well last a Cow a week.

In February, when the pasturage is eaten bare, the Cows are to be taken up into the cow-house, and fed with dry meat, according to their

quantity of milk; those which yield the most being the best fed to keep them to it; and the others in proportion.

Milch Cows should not be blooded unless there be pressing occasions, and in that case the quantity should be moderate, never more than about sixteen ounces.

The difference there is between one Cow and another, in the quantity of their milk, is so great, that there can no exact rule be laid down for their management in times when feeding comes dear; the best that can be said is, that in proportion to the profit the creature brings, should be allowed an expence in feeding: for a Cow may be kept alive, in health, nay and in tolerable flesh, for much less than she can be fed for the continuing to yield her quantity of milk.

The demand there is for the milk and the Cow, and the profit that may be at any time made by selling both, is to be consider'd; for the same thing is worth much more in one place, and at one time, than another, in proportion to these accidents.

In the neighbourhood of London there is so constant and certain a demand for every thing, that the Cow-keeper, partly with hay, and partly with turneps and grains, feeds his Cows in such a manner, that they are at the same time in their highest perfection for milk, and at any time fit for the Butcher. But this is not to be done else-where.

The difference between the milk of these Cows however, and those fed in the country, is

very great, and all the advantage is on the country fed Cows side. The grains make the milk poor, tho' they yield a large quantity.

The price of grazing ground about London is very great indeed, but this is very well answer'd in the present article, by the price at which the milk is sold. This poor milk being sold at three-pence the quart, very bad measure, while in the country, but half a day's journey from London, 'tis a penny the Winchester quart; and in some places the milk quart is full three Wine pints; while the London quart of milk is much less than a Wine quart.

A Cow in a good farming country, where provisions are at a middling price, is suppos'd, while in milk, to be worth five pounds a year. This is reckoning her to yield about four hundred gallons in that time, which, with proper management is a very decent computation.

If the whole quantity of milk yielded by a middling Cow, be made into butter, the quantity will be about two hundred weight a year.— and there will be a value beside in the skim'd milk-cheese, and in the whey, which last serves for the feeding of Hogs. From this, which is counting at a moderate rate, we may see the importance of this creature to the Farmer, especially if he take care to keep her in tolerable flesh all the time, so that upon a short notice for fattening, she may be ready for the Butcher.

There is another use to which the Milch Cow is put in some places, and which should be here brought to account, that is, the suckling of

Calves. A good Cow will suckle four Calves besides her own, and grains will then be a considerable article in her food, for a great part of the year. In this way of feeding, tho' the milk be poor, there is always a great deal of it; and then, tho' bad for the uses of the Dairy, it is very fit for the breeding up of Calves.

In Ireland they compute a Cow yields for the first ninety days three gallons of milk a day; then for ninety days more that she yields one gallon a day; for ninety more about a quart a day, after which she is to be allow'd about ninety days more dry.

This is the account of a poorer kind of a Cow than ours, and in generally poorer pasture, and at more indifferent feeding: but then the price is less originally, and the rent of land less: so that all things consider'd together, the profit may be about equal.

This may be set down as the poorest account, for no Husbandman ever needs compute lower than this, and the London account as the highest; and considering all things, the difference does not amount to so much, nearly as would appear at first sight. The Husbandman in general may reckon at a medium between them.

But there are yet some other articles which demand the Farmer's consideration. We have hitherto consider'd the Cow as feeding only upon natural grasses in our pastures; but the custom is become very general of raising artificial grasses, and is very beneficial; and among other uses of these, Cows must sometimes be fed upon them.

Now it must be allowed that these artificial grasses, as they are called, although they feed the beast very finely, and occasion a great deal of milk, yet give it an ill flavour, which runs through all the things that can be made of it, and consequently reduces their price at a market.

For this reason it is not adviseable to feed the milch Cow upon these artificial grasses, when there is other food ready for her. The Husbandman should never do this upon choice; but he may often be led to do it by necessity, and by the circumstances and situation of his farm. Now in this case let him use his Cows not for the immediate sale of milk, or for the Dairy; but for the suckling of Calves. Upon a very moderate computation a Cow that suckles four Calves, beside her own, in one year, will be worth five pound to the Farmer; which is much the same with her common produce, any other way; and if she be able to suckle five, the gain would be advanced five and twenty per cent. She is much more likely to suckle five upon this feed of artificial grass, than any other way; for it keeps her in heart, as well as causing a abundance of milk: and in this case the ill taste the milk gets is no disadvantage: for the calves shew no aversion to it; nor is it at all tasted in the Veal.

For the same reason that suckling is the best use for Cows under the circumstance of feeding on artificial grass, it is also adviseable to prefer it to all others, when the Farmer's pastures where

his cows feed, happen to abound in such natural grass as gives a rankness to the milk. This is often the case, where the grass is large and rushy, or of that jointed sort common in marsh aces. This kind of food yields a great deal of milk, but with an ill flavour, but the calves have no dislike to it, nor does it do any harm to their flesh, either in taste or colour.

I have said little of cheese in the consideration of the uses of the milch cow; because there are some grounds where it cannot be made to any great account, of which more in its place. In general, in those counties where good cheese is not to be made, it should be entirely let alone: in others the profits, upon a fair account, considering every article, seem to be about equal to those resulting from butter.

The Dairy requires the nicest as well as the richest milk; and therefore, where the circumstances will not allow of the cow's yielding this her milk should be always be put to other uses. The fine milk is the produce of sweet grass and good water. Where the food is rank, or the water bad, the milk will always have a taste from it; and for that reason, if the pasture be ever so good; and the water bad, it is best for that only reason to set aside all other thoughts, and use the Cows for suckling of Calves, if the circumstances and situation render that a practicable matter.

About London, where the Cow is kept in flesh all the time of her milk, so that she is any day of ready sale to the Butcher; the way is as

soon as she begins to fail in milk to sell her, and purchase a lean Cow in the proper milch condition in her place.

In the country something like this is to be done also, tho' more care and time is requir'd for it.

One of the greatest inconveniencies of sucking these Calves is, that they keep the Cow down by the quantity of milk they draw, so that she is not ready to go to the Bull again at a proper season, but misses her time. — When this happens, the Farmer's business is to fatten her up for the Butcher.

About the beginning of May, or in the middle of August, such Cows are to be turned into a proper pasture for fattening, and manag'd accordingly. — This will take up four or five months, and at the end of that time, they will be of ready sale; and if these seasons are observ'd for turning them to fatten, they will be fit for slaughter at a time when they bear a price; for those which are turn'd in at the first named season, are fit to kill in Harvest time; and the others a little after Christmas.

Both these are seasons when Beef bears a price; and the price for which such a fattened Cow is sold, will be enough to purchase a milch Cow with a Calf by her side; and pay for the time of her fattening into the bargain. Thus the Husbandman must contrive and compute, for all things must be taken into his consideration, if he would make the most of his profession. It is easy to get something by it; but he

who sets to work upon it with knowledge, will double his advantage.

C H A P. III.

Of the Calf.

WE have already given the Husbandman proper directions for the choice of his Bull and his Cow, therefore he is so far instructed toward the breeding of the Calf. — But a great deal remains to be said respecting its management, for it may, in many cases, be made doubly valuable by proper care. In different countries various methods are used in raising of calves according to the nature of the demand for them, many means being employ'd to suit their flesh, to the taste and eye in the markets, of which we shall treat hereafter. There are two ways of breeding those which the Husbandman intends to rear. The one is to let them run with the Dam all the year; and the other is, that of taking them from the Cow when they have sucked a fortnight.

In the cheap breeding Counties, the first way is the most usual; and it is commonly allow'd that it produces the fairest, stoutest and best cattle. It is done also with least trouble to the owner. These are inducements of some conse-

quence, but there are in many instances others on the opposite side that out-weigh them.

When the Calf is taken from its Dam at a fortnight old, a great deal of care is requir'd in raising it: but in those places where it is the common method, all this becomes familiar and easy by use. They first of all warm a quantity of flet milk, and teach them with a great deal of pains to drink it. There is a great caution to be used in the degree of heat they give this. It is most natural when it is of the same heat with the milk just drawn from the Cow; and if it be much warmer, or much cooler than this, it is sure to do the Calf harm, and often is its destruction.

The Calf, if rightly manag'd, in a little time gets some strength and hardyness, but when just waaned, and at this tender age, it is very weak and tender.

When thus wean'd, it is to have milk given to it for a quarter of a year; and at the end of that time, in order to break it from that, some water is to be put to the milk, and by degrees more and more till it be only water, and serve for drink, not for the sole nourishment.

Before it is brought to this, the Calf must be taught to eat dry food, which is to be done by putting some fine hay in a cleft stick, and leaving it in his reach. This should be first put in his way when he is about five weeks old; and he will soon take to it; so that by the time it is proper to wean him from milk, he will naturally feed on hay.

When the Calves have got some strength and hardyness, the Husbandman is to take his opportunity in fair weather, in the middle of the day, to turn them out to grafs; they are to be taken in at night for about a week, and some milk and water given them warm; and it is a good custom to set a little to them sometimes in a pail in the field: this may be done occasionally, till they are able to feed and take care of themselves.

Great caution is to be used in the first turning Calves out to grafs, not only that it be a favourable season, but a proper kind of pasture. It should have a short sweet grafs, with a good body, but no rankness.

The best way is to wean the Calves at grafs, for when they are wean'd in the house by means of hay and water, they generally become subject to disorders. The other is the most natural method, and every way the best.

At about three years old, such of the male Calves as are intended for Oxen, should be gelt. This is the time at which they suffer least from it.

In places where there is quick demand, the best method is to fat all the Calves for the Butcher, except such as shall be necessary to keep up the stock. This demand is commonly largest near great Towns, where the price of the Calf is high, and where the grounds are not profitable to breed upon, so that it is a particular circumstance: cheaper countries being fitter for breeding,

O F

C O W S and O X E N.

C H A P. I.

For the Fever.

THE Farmers find their cows and oxen subject, like themselves, to Fevers; and these though they generally will go off kindly by assistance, often are of very bad consequence when neglected. The most common occasion of them is a surfeit, and sometimes they will seize them as ourselves are seized by sickness, without any visible cause.

The signs are these: The creature foams at the mouth and hangs down the head; the eyes look heavy, and the whole body trembles; and frequently groans very mournfully and heavily. It is hot and restless, and does not care for food, but is continually desiring to drink. These are the genuine signs of Fevers in Cattle.

The farmer must take care that he confound them not with the symptoms of other diseases, for this is the general mistake. Let him remember, that as these are the proper signs of a fever, so there are no other but these that are to be considered plainly as such.

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Many other disorders will have the symptoms of a fever joined with those that are peculiar to themselves ; and in that case, the farmer is to be upon his guard accordingly ; he must first distinguish the disease truly, or all advice and all knowledge of remedies will be fruitless.

In Cattle, as in ourselves, many, nay most other disorders, are attended with a Fever ; therefore it is natural that feverish symptoms appear with them ; hence let the farmer, when he sees these signs here described, in a creature of this kind, first examine whether there be not, together with them, some belonging to those disorders, we shall describe in the succeeding pages ; if there be, then he is to level his remedies at the disease they indicate ; those signs of a fever being symptomatic : and as the other disorder is the real cause of them, when that is removed they will go off.

This is the conduct he is to observe when there are the signs of a fever, and those of some other disease together ; but when there are those of a fever only, that is, those we have here described, and no other, he will find the following method of cure generally successful.

First bleed the creature : and as to the quantity, that is to be guided not only by the nature of the disorder, but by the condition of the body : if it be a very violent fever, more blood is to be taken away ; if less violent, less : and if it be an Ox, he may be blooded much more freely than a milch Cow. A quart of blood may be very properly drawn from the former ; but it is a general and very wise rule, that there never should be more than a pint taken from

the latter. Tho', if the symptoms encrease, the bleeding may be repeated after four and twenty hours.

When the creature has been blooded, set it up warm, and give it no victuals.

Boil, in six or eight gallons of water, a basket-full of plantain-leaves and roots, and half a dozen handfuls of agrimony, strain them off, and let the creature drink of this, warm, as often as can be.

The next day give a quart of ale, with half an ounce of Venice tracle in it; and repeat this once in eight hours.

Give some very fresh hay, sprinkled with cold water, after all this; and, by degrees, the beast will grow well.

During all the time of the illness, the lips must be frequently rubbed and cleaned, for they furr up and grow foul with the heat of the disorder; and unless this care be taken, it will not eat or drink.

Let the creature be kept up till perfectly recovered, and after that let it be taken some care of several days.

C H A P. II.

For binding of the Body.

THIS is a distemper to which these Cattle are very little liable, for their natural

constitution is to be loose; but, for that reason, when it does happen, it is to no creature so dangerous, nor is there any disorder in Cattle that requirs so critical a method of cure.

If any of the common purges that are used for Horses, be given to Cows and Oxen in this case, they seldom fail to bring on a disorder in the other extreme, that is much worse than the first; and the remedy grows worse than the disease.

I have found from experience that the following is a safe and excellent medicine.

Take a quarter of a pound of coarse ordinary manna, this sort is to be bought for a fourth part of the price of the fine kind, and yet for any use it is better.—Melt this in a pint and a half of ale, put it into a bottle, and add to it half a pint of sweet oil, and six ounces of Lenitive Electuary. Shake all very well together, then pour out a gill and half of it: warm this, and give it every morning and night till half the quantity be taken; and then every morning only till the remainder is all taken. This never works as a purge, but it gently produces the effect, bringing the creature's body to a due state and condition; and as this is brought on gradually, it is sure to continue. I never once knew a relapse after this cure.

C H A P. III.

Of Loosenesses in General.

THIS is a disorder to which Cows and Oxen are much more liable than the former,

the condition of their discharges naturally tending to it ; and it is for that reason difficult of cure, if not taken in time. When it first comes on, it effects them no other way than by making the discharge thinner, while it retains its natural colour : after this it becomes paler and sharper, giving the creature great pain ; and after that the stools grow bloody.

These are the true stages of the distemper.— The Farmer is to regard them carefully, for there is to be a different course of medicines for each. We shall therefore, after this general account of the disorder, consider it under these three particular heads, delivering the proper remedies.

C A A P. IV.

For a Common Looseness.

BOIL half a pound of fresh roots of Bistort in two quarts of water. Strain off the Liquor, and add to it four ounces of whiting, and an ounce of Diascorpium, made without honey—give the creature half a pint of this, warm'd and well shook up, three times in the four and twenty hours, till the complaint ceases. Sometimes a single dose, performs a cure ; but in that case it will be proper to give another dose, morning and night, for two days, to prevent a return.

C A A P. V.

For a Looseness with Sharp Stools.

IF the former Medicine have not stopped the disorder; or if the Farmer have not observed it till it comes to the second stage, that is, till the creature's stools are sharp and discoloured, then the following remedy is to be used.

Bruise to a gross powder half a pound of the dry root of Tormentill, and boil it in two quarts of water to a quart.

Squeeze this off, add to it a quart of rough red Wine: add also a quarter of a pound of whiting, two ounces of Diascordium without honey, and one ounce of Japan earth. Shake this very well together. Warm it every time it is given, and let the cow have half a pint of it for a dose, three times a day, till perfectly recovered.

C H A P. VI.

For a Looseness with bloody Stools.

THIS disorder sometimes comes on at once; but more frequently it is the consequence of neglect, or wrong medicines given for the o-

thers ; or of the violence of the disorder, which sometimes will not be conquered by the very best.

The natural course of the disorder is this ; a sharp humour falls upon the bowels, and the stools are thin and cutting.

After a time they wear off the slimy coat of the bowels, and then what comes away is discoloured ; and after this they wear the very insides of the guts themselves, and then come bloody stools. This is the last and worst stage of the distemper, and it is very dangerous.

When it has arrived at this degree, the following method is to be taken ;

First let the creature be blooded, but not largely ; then prepare this medicine.

Bruise to pieces half a pound of dry roots of Tormentill, six ounces of dry Pomegranate-bark, and two pounds of the leaves and roots of plantain.

Boil these in three quarts of water or two. Then put in two ounces of cinnamon pounded ; let it boil a few minutes longer, and then take it off.

Set it by to be cold, and then strain it off ; add to this three ounces of Dragon's-blood, in powder, and a quarter of an ounce of Roch-Allum.

Shake all thoroughly together ; and when it is to be given, warm the proper quantity ; this is to be about a gill and half, and it should be given three times a day.

C H A P. VII.

For Loosenesses with great heat of Body.

WE have told the farmer what are the symptoms of a Fever in these creatures; and he is aware that they may happen with other disorders. A purging is one of those with which they may happen, and in that case it is not to be treated as a fever alone, neither is the disorder to be considered only as a purging; a due regard is to be had to both: and the following medicine being founded on reason and supported by repeated experience, I shall earnestly recommend for this purpose to the farmer.

Cut into slices six ounces of the root of the herb called Avens, or herb Bennet. It is not sold at the Druggists nor at the market, but it is common on ditch banks. The flower is little and yellow; the head is a small Burr; and the root smells like Cloves. Let this be boiled in three quarts of water to two quarts, adding, toward the end of the boiling, an ounce of fine Cinamon, and two ounces of chips of Logwood, such as is used by the dyers.

Strain off this liquor, and add to it an ounce of powder, of Virginian snake root, and a pint of red port Wine.

Give the creature half a pint, warm, twice in 24 hours.

C H A P. VIII.

For the Obstruction of the Liver.

THIS is a disorder to which Cows and Oxen are very liable; the farmers are acquainted very well with the symptoms of it, tho' not with the cause; it is what they call by the general name of an inward sickness.

The signs by which it is known are these; an uneasiness sensible in all their actions; and a lazyness or unwillingness to move. To this is to be added a scurfyness, and harsh dryness of their lips, and a dryness of their noses in a morning.

This last is a very singular but very certain symptom.

When these cattle are well, if they be observed in a morning, there is always a drop of dew, like a pearl, hangs upon the nose; but when they are sick it is commonly wanting. No disease sooner takes the effect of getting off this mark of health, but it is not peculiar to this. If the other symptoms shew that the disorder is of that kind, this joins with them to confirm it; but if not, the cause is to be sought farther. In case of an Obstruction of the Liver, the remedy is this:

Take a pound of great Celandine, dug up with the roots, cut it all to pieces, leaves, stalks, and roots together, and put it into a pot, with two gallons of water, let it boil up a few mi-

nutes ; then add half a pound of Mader root, ten ounces of Turmeric, and four ounces of fresh roots of Fennel. Boil these very well, and then strain off the liquor.

Get a hat-crown full of Wood-lice, they are common enough about decay'd timber, and under stones. Pound these with a pint of white wine, and squeeze out the juice, then add this to the strained liquor.

Shake this up every time it is to be used, and warm half a pint of it for a dose. It should be given every night and morning for ten days.— This is the usual time required to perform a perfect cure : it may be sooner, or it may require a few days longer ; but the medicine will hardly fail.

C H A P. IX.

Of Bloody Urine.

THIS is a disorder to which Cows are very liable, and, if not taken care of in time, it is a very fatal one. The method of cure is this:

Take the cow into a warm house, where she is to be kept till cured.

Bleed her about three quarters of a pint, and then give the following medicine :

Gather a basket-full of that sort of Cranesbill, call'd herb Robert.— Stamp it in a marble mortar, and press out the juice ; give the Cow a quarter of a pint of this every morning

and night, and it generally will perform a cure in about three days.

It is a kind of specific for the disorder, and cures with surprizing quickness: but there are some cases in which other disorders bring on this bloody Urine, and then this medicine does not answer.

Let it be try'd only six or seven doses, and if that do not succeed, have recourse to the following.

Boil in a gallon of water a great quantity of the same herb Robert, and as much shepherd's purse.—When they have boil'd well half an hour, put in a good stick of cinnamon; and after boiling a few minutes longer, set it off the fire. Then strain it and set it by to cool,

Dissolve in this two drams of sugar of Leed, and add one hundred drops of spirit of vitriol.

Shake all well together, and give the creature a gill of it cold every four hours, till the cure is perfected.

C H A P. X.

For Running of the Nose.

THIS disease which grows to such a terrible height in Horses, under the name of the Glanders, is very slight in comparison of that, in these cattle. It proceeds from cold, and the running is like that from our own noses in a

like case ; only as they hold their heads down it is not so easily cur'd, and it will encrease upon them to a mischievous disorder in time, if not stopp'd.

Take the creature up, and let it be kept warm.

Bleed it about a pint, and then give the following :

Boil a pint of ale, and dissolve in it half an ounce of Venice treacle.

Give it warm, and let it be repeated every night and morning.

Give the creature good provender while under this method of cure ; and during the taking of the medicine use the following application to the part. Melt some fresh butter; and stir in as much flower of brimstone as will make it a thick ointment. Rub some of this all over a couple of goose feathers, and warm them a little before the fire ; anoint the inside of the nostrils carefully, but thoroughly, every morning and evening with this, till the disorder ceases entirely.

C H A P. XI.

For Worms.

COWS and Oxen are subject to have worms bred in their bowels, and they are greatly disordered by them ; they will prevent their

thriving, and make them restless and untractable. The Remedy is this ;

Chop to pieces some savin-tops, and leaves of Bear's-foot, mix with these a little salt of steel, and work up the whole into a sort of paste with butter. Divide this into small balls, and give one of them every morning early for a week or longer ; keep the creature without meat three hours after the medicine, but let her drink as much as she chuses.

If this medicine do not succeed alone, it must be assisted in the following manner :

Dissolve half an ounce of black soap in a quart of sweet-wort, and give this every morning after the ball of Savin. In this manner the cure will usually be perfected in a few days.

C H A P. XII.

Of Worms in the Tail.

BESIDE the Worms that breed within the Bodies of Cattle, there are a very troublesome and mischievous kind that breed and live externally in the Tail.

They torment the creatures out of their lives, waste their strength and Spirits, and keep them in continual pining. They usually grow lean ; their backs become weak ; when they are lain

down they are scarce able to get up again, and they have a faintness in their looks and motions.

When the Farmer sees a Cow or Ox in this condition, let him examine the under parts of the tail. He will first perceive that the hair is fallen off; then that there are a multitude of little sores; and, upon further examination, he will perceive, that the tail is almost eat asunder in several places at the joints.

This might seem to be a natural ulcerated state of the tail; but it is, in reality, owing to a multitude of eating worms, which will be found easily enough upon looking after them. — They are occasioned by foulness of the tail, which tempts a particular kind of fly to lay its eggs there; or, according to the common expression, to blow it.

These worms are hatched from the eggs, and they live their time in the tail amidst these sores; after which they drop off, and take their chance upon the ground, where, if not trodden to pieces, they harden outwardly, and after a while, they come out a fly, like the parent animal.

There never want a succession of these tormentors; for the condition of the tail draws more flies to blow it, like meat that begins to putrify, and thus the disease continually increases.

The Farmer thus understanding the nature and cause of the disorder, will know how to guard against the accident to which it is owing.

And we shall next inform him of the remedy.

It is only in Summer the disorder takes its rise; tho' when once established, it will continue at all seasons.

Therefore as precaution is in all these cases easier and better than a cure, let him take care in time. We have told him that it is foulness on the under part of the tail in Cows, that first brings the flies to them. Nature has so dispos'd the tail in this creature, that it is very liable to be made foul. This is an inconvenience, but it is attended with many advantages; it is therefore the business of the Farmer to remedy the disadvantage, which is easy, that the creature, and himself in consequence, may reap the benefit.

The dung of the Cow and her Urine, will be apt to hang upon this under side of the tail; and after calving, there will be also greater inconveniences of the same kind: therefore let a person be employed, once in three or four days, to clean the tails of the milch Cows, in particular in this part, which will be very easy; and of the Oxen, as there may be occasion. This will be very agreeable to the creatures, and were there no other advantage it would be worth while for this, because the more comfortable they are kept the better they thrive. But if this care be taken there will be no such thing as the tail worm known. Cleanliness will not only prevent the disorder, but in the first stages will cure it. The best washing is performed by

means of a brush and soap suds, and if a few of the worms should be bred, this will perfectly destroy them. We shall hope the Farmer will take this care, and he will need no farther information; but as a neglect of this may have happened, or the disorder may have some way got footing where he little expects we shall here deliver also the remedy.

Chuse out a pound and half of fine fresh and new made stone lime. Boil a gallon of water, and pour it all at once upon the lime in a very large earthen pan.

It will bubble up in a surprising manner.— Stir it well together, cover it up when cold, and let it stand all night to settle; there will be a very strong lime water, though but a small quantity of it. In the morning let it be poured clear off, and kept for use.

Take up the Cows that have the disorder, and keep them dry and carefully while they are under cure.

Make a very strong lather of soap suds in soft water; and first of all with flannels, and afterwards with a brush wetted in these suds, wash the tails in every part perfectly clean; and the more to promote the perfect cleaning of them, cut off the hair that remains as short as can be.

After the tails have been thus cleaned, and are dry, wash them in the same manner with this strong lime water. Observe after four or five days, whether the disorder be cured; if not farther methods must be taken. Once a day will be enough to dress the tails by these two

washings, but it must be every time done in this careful manner, first by the soap suds, and afterwards by the lime water. If these fail the following method is to be used.

Stamp a good quantity of the fresh tops of Rue and Savin; when they are reduced to a paste; add a little white Hellebore and stone Ocre, both in powder, and some wood Soot and a little salt. Beat all this up again, and then mix in some butter. When this is ready, and the tail perfectly cleaned, let it be slit along all the way down the inside, nearly to the bone, and very thoroughly anointed with this.

If this does not cure in three or four times, let the tail be rub'd with a small quantity of the common blue ointment, made of quick silver, Venice turpentine, and Hog's lard.

These several methods are to be tried one after another; usually the first succeeds, if not, the second rarely fails; but if none will do, the last resource is to cut off the tail.—But it is best to fatten up the beast after this for sale directly.

C H A P. XIII.

For Boils on the Flesh.

COWS are subject sometimes naturally to large and painful Boils; and sometimes

they fall into the same misfortune in a surprising manner, by means of a fly, as in the former instance.

We shall consider these cases separately.

When a Boil comes naturally on a Cow or Ox, the thickness of the skin, and the cold constitution of the animal make them ripen slowly, and they also heal slowly and difficultly afterwards. Nature is, in these cases, to be assisted in the following manner. For the ripening of a Boil; take up some white Lilly roots, and boil them in milk and water till they are perfectly soft. Then lay them hot upon the Boil. Bind them on if that can be done conveniently. if not let a person hold them on till they are cold.

This is to be repeated as occasion requires; the oftner the better; and the Boil will ripen and come to a head.

The opening of a Boil when it is in this proper condition, may be done either by a knife, or a red hot iron, and the general practice is by the latter method.

When the matter is discharged, which should be promoted by a person's pressing it gently, let it be dressed with the following ointment. Put into an earthen pipkin half a pound of tar, and three quarters of a pound of Horse turpentine; set it on a gentle fire, and as it melts throw in a little Hog's lard, about two ounces will be sufficient. Stir all well together, and dress the part every day with some of this warm, till it is healed.

The other accident of Boils occasioned by flies, is much more wonderful than any thing relating to this creature, and the discovery of it was made by Mr De Reaumur, of the Royal Academy of Sciences at Paris, and is delivered in the fourth Volume of his Memoirs, very much at large. The very same thing happens in England, and what we see verifies his accounts.

There is a large fly that in Autumn teazes the Cattle prodigiously. It settles upon them, and lays its eggs in a small wound, that it makes for that purpose in the skin. These eggs hatch in time, and the part swells with the hurt. A Cow shall thus be covered with filthy Boils, while its blood is in a perfect good state, and this accident the only cause of it. There is a maggot in every one of these Boils, which feeds upon the matter bred there till it is of full growth, and then crawls out and takes its chance for appearing in the fly state, as we have shewn of the other.

There is no need to suffer the creature to be tormented in that manner till the maggot goes out of itself; but the assistance of a careful hand should be given to clear her of them at once.

Every one of these Boils or lumps should be opened with a sharp knife; and the maggot taken out and destroyed. The wound is then to be dressed once or twice with the ointment before directed, and the creature will be perfectly freed from the torment.

C H A P. XIV.

For Disorders of the Lungs.

THESE are of various kinds in the Cow and Ox kinds, as in ourselves, but experience shews that one remedy will serve for them all. Sometimes the creature breathes with difficulty, sometimes coughs and wheezes; and in either case, or any other proceeding from the Lungs, give the following medicine. Bruise four heads of Garlick, and press out the juice, mix this with a quart of new milk, and add a quarter of a pint of tar. This will serve for four doses. One is to be given every morning till the cure is completed. About four doses usually answer the purpose, but if more is required, the same quantity is to be mixed up over again.—The tar does not mingle well with the rest, but these are not very nice creatures, so it goes down.

If the disorder be obstinate, and do not readily give way to the remedies, the creature should be blooded, and they will then take effect.

C A A P. XV.

For Foulnesses of the Skin.

CATTLE of this species are cleaner in their hides than most others, but they are not altogether free from blotches, scurf, and scales.

When these appear they must instantly be taken care of, for the beast can never thrive that has them.

First of all let the cause be considered, which is often only want of cleanliness, sometimes a disorder in the blood; and in some cases it is owing to both together.

Foulness of diet is the common cause of this disorder in the blood; and this is usually occasioned by that sort of rank grass which grows in wet places, and the weeds among it.

Therefore to undertake the cure rationally let the first thing be a change of pasture. From a low ground full of rank weeds, and abounding with mud, remove the cattle to a high dry piece of pasture, where the grass is very sweet, and the soil gravelly or otherwise dry, so that there can be no dirt for them.

If the disorder be only owing to uncleanness, this change alone will cure the Cattle.

If the blood be concerned, this is also a very proper method of assisting the effect of medicines.

Let the creatures be blooded : about a pint and half from the Ox, and half that quantity from the Cow.

Then let them be taken in and perfectly cleaned. Warm soap suds, a soft brush and flannels are the proper remedies for this foulness, or they are the needful preparations for others.

When the Cattle have been perfectly cleaned, if any scales remain let them be pick'd off; and the next day let the washing be repeated. This, and the cleanness of the pasture, will fully answer this first purpose.

The next day let the creature be washed well over with the lime water, directed to be made in a former Chapter; and if any of the scabs have grown to a bigness since they were pick'd off, they must be rub'd again, that the lime water may get to the root of the disorder.

Let this be repeated three times, at two days distance; and all the while let there be some flower of Brimstone sprinkled among the hay that is given them in a morning. In this manner their blood will be sweetened, at the same time that the outward remedies perfectly cure the disorder.

C H A P. XVI.

Of falling of the Palate.

THIS is a disorder that frequently seizes upon Cattle after hard labour and colds;

and is of a very troublesome nature, if not provided against in time.

When the palate is first fallen it is not difficult to replace, and keep it up ; But when it has been any time down the difficulty of putting it up, and the readiness to fall again, are very great. I have known an Ox obliged to be killed when it was not intended, nor was he fit, because he would otherwise have been starved by the unconquerable continuance and relapses into this disorder.

The Farmer will perceive that the creature has this disorder by his great uneasiness, and a particular kind of hollow groaning : he will be continually striving to eat, but not able to swallow, and thus without care he would go on till entirely starved.

The Remedy is this ; cast the creature, and getting the hand into his mouth replace the palate as it should be : then rub over it some honey and pepper mixed together, and let him rise again : half an hour afterwards bleed him a pint and half or more ; and thus the complaint is commonly to be cured without any danger of a relapse.

He must not be fed with hay, but for some days only with fresh sweet grass.

C H A P. XVII.

Of Hurts in the Feet.

WHEN a Cow or Ox is observed to limp, and keep one or more of his feet from the ground as much as he can, the occasion usually is some complaint about the hoof, and nothing so common as a foreness between the cloves.

For this the remedy is easy.

Cast him, and clean the space between the cloves perfectly well, rubbing it till it bleeds, In the same manner clean all about the foot.

Then chop a quantity of the leaves and tops of Mugwort, boil them soft in milk and water, and put some in between the cloves, and some about the whole hoof, tie it on and let the creature be kept quiet; the cure is generally completed at one dressing.

Some accidental foulness is oftener the cause of this complaint than any thing else; so that cleaning it, and laying on a soft healing Cataplasm in this manner, is a very natural remedy.

When the case is worse, and there are actual sores between the hoofs, the best method is to clean them as already directed, and then to dress them with a quantity of black Basilicon spread all over some tow, and drawn in between

the cloves. This should be repeated every day till the cure is perfected.

C H A P. XVIII.

Of the panting Evil.

THIS is a disorder that shews itself in the creature's faintness and unwillingness to stir; in his frequent panting, and as it were sighing. It renders the creature weak, and he generally wastes in flesh.

The remedy is this.

Boil a quart of ale and dissolve in it half an ounce of Mithridate, and a scruple of powder of Saffron.

Give this warm every morning for four times; it very rarely fails to make a cure. The creature must be fed upon dry sweet hay, and have this drink warm during the cure.

C H A P. XIX.

Of the Yellows.

THIS disorder in Cattle is of the same nature with the Jaundice in ourselves. It is

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perceived first by Yellowness in the eyes; and in the lips; and the creature is always lazy and weak. The cure is this.

Bruise in a marble mortar a basketful of great Calendine roots, leaves and stalks together; add to this a good handful of Rue, and then squeeze out the juice.

Mix with this an equal quantity of juice of Wood lice, and give the beast a gill and half of it every morning, for about a week; and afterwards every other morning for a week longer. In this time the cure is generally compleated, and there is no danger of a return of the complaint.

C H A P. XX.

Of the Gargil.

THIS is a very terrible disease, and more difficult of cure than most others.

It is an external swelling and inflammation; but the blood is always concerned; and the disorder for that reason spreads and defies all outward remedies.

It appears at first in the lower part of the Dewlap, in form of a hard inflamed lump which spreads till it occupies the whole Dew

lap, and reaches to the throat, in which case it is very often fatal.

This is the disorder called the Gargil distinctly and properly considered.—It affects the Dewlap and throat only; and it is the first step toward the most dangerous disorders; but it is of a distinct nature in itself, too often destroying the Cattle without encreasing to any greater degree of Malignancy than this.

Farmers confound the terms of diseases, and Farriers more.

Authors who should write for their information copy their mistakes, and consequently tell them only what they knew before, confirming them in error, not leading to truth.

We are entering now upon a point of vast importance; and unless the first steps be cleared of perplexity and confusion, the rest will never be understood.

The Gargil and Garget are treated by these writers, as well as spoken of by Farmers and others, as the same disorder, but this is the distinction.

The Gargil is a swelling in the Dewlap and throat, extending no farther; the Garget is a swelling of the head and eyes, with other external parts, with inflammation; and the Murrain is the same swelling and inflammation, extending itself also to the inside of the throat, the stomach, and the bowels.

This last is the distemper now, and of many late years so fatal among the horned Cattle, it becomes the Farmer to understand it in all its

progress; and if the physicians who have written so much about it had descended from the closet to the Cow-house, they would have found the same facts; and knowing something of the cause, they would have been more likely to have made a proper judgment as to the method of cure.

The state of the three distempers is this.—The Gargil can never change to the Garget; and if ever it seems to do so, it is that the Farmer has observed the throat more than the head and eyes, when they have been also affected, and the disorder has been the Garget all the time, while he took it for the Gargil.

The Gargil may very naturally, and very frequently does change into the Murrain; but the Murrain may begin of itself without it.

That is, a swelling of the outer parts of the head and neck, which is the Garget, may spread inwards, and so be converted into a Murrain; or the inflammation and swelling may begin in the inner parts, and then it is most dangerous, because least seen; and is most infectious because the breath conveys it to all those which have their heads near; this is the Murrain appearing in its proper form; and this is of all the most fatal.

The reader will thus understand the several stages of the disorder among the horned Cattle, and thus perceive what is best to be done for preventing the infection.

Having thus, from the first origin, traced its several degrees and appearances, we shall now

deliver the method of cure for this, which is but a resemblance, not an absolute degree of it.

As soon as the Gargil is perceived let the following ointment be prepared. Melt together equal parts of pitch and turpentine, and add a small quantity of Bees wax. — Let this be in readiness.

Slit open the Dewlap for three inches in length where the swelling is, and let it bleed freely.

Bruise in a marble mortar a handful of the leaves of the great black Hellebore, and add to them some Hog's lard: beat the whole up, and thrust in a good quantity into the slit. Sow up the wound to keep in the ointment, and keep the creature clean, warm and quiet for two days.

Then open the stitches, take out the remains of the Hellebore, and melt some of the ointment just directed to be made: dip a large pledget of tow in this, and put it into the wound hot. Repeat this dressing every day till the wound heals.

This generally proves a remedy for the Gargil, when it is not of a very violent kind: and when it is, scarce any thing will be found effectual. The addition of equal parts of Gum Elemi and a few grains of Euphorbium to the ointment, is the best that can be done.

Let the Farmer first take care that he distinguishes that it is really the Gargil, and nothing more that ails the beast; and then he will need to do no more than this.

C H A P. XXI.

Of the Garget.

THE Garget commonly confounded with the former in name, as the words much resemble one another, is in effect a quite different disease. It is as we have observed in itself very terrible; and it is the first stage often of that dreadful disease, under which our Cattle now suffer.

The Garget is a disorder of the outward parts of the head, which is attended with swelling and inflammation; which frequently spreads into the mouth, and sometimes into the throat and down to the intestines. In this last case it is properly the Murrain, tho' it begun with the Garget.

It is very essential to treat of these distinctly, for the remedies are different; and the proper distinction is this: the Garget is the swelling of the head, eyes and lips, extending itself to the gums and tongue, but no farther: when it goes farther it acquires another name.

The most usual cause of the Garget is bad water; but the extreme degree of it and of the Murrain often arise from an infectious state of the air; and it would be vain to seek their origin elsewhere.

When the Farmer sees an Ox or Cow affected in this manner, with a swelling in the head discovering itself about the eyes, the first thing he is to do is to examine the lips; and if they are swelled, he must look into the mouth and examine the tongue.

He must be careful in his observations, because upon the difference in this respect depends the method of cure which is peculiar in each degree of this terrible distemper.

If the eyes, lips, and whole outside of the head be affected, and nothing more, the remedy is to be as follows.

First let the creature be blooded very largely; and immediately after give the following mixture.

Heat a quart of ale, and dissolve in it three quarters of an ounce of Mithridate; add ten grains of Saffron, and a tea spoonful of sweet spirit of Nitre: give this every six hours, and observe whether the swelling about the eyes decrease; for this is the great symptom by which to know whether the medicine takes effect—Give the drink warm, and as much as the creature pleases.

If the swelling continues, especially if it increases, bleed again more largely than before; and instead of the medicine before directed, give three ounces of Glauber's salt dissolved in water.

This will purge the creature pretty briskly; and by this change of the remedies there is a fair chance for a cure: but we don't pretend to

promise the certainty of success in these as in many of the preceding cases.

The distemper is of a very desperate kind: and there is always danger. If these methods both fail, the only proper course is to continue them interchangeably, till there is an amendment or death. But we have seen in many instances, that the first doses have been successful.

The next stage in which we are to consider this disease, is that in which the inside of the lips and the tongue are affected.

This is still the disorder distinctively called the Garget, provided that the outside of the head be affected also; but if otherwise it is properly the Murrain, tho' in a less degree than is usually understood by that name.

This we have observed in various instances: we have seen a Murrain, that at first appeared less terrible than a Garget; but it does not long continue in that condition: it grows worse presently. The appearance of the Murrain in the mouth alone is only its first stage, according to the peculiar manner of taking the infection.

The Farmer is to consider and examine this distinction carefully; for those medicines will be proper in one case, that will be trifling in the other.

Thus then, if he first perceive the outside of the head swell, let him examine within the mouth, to know whether it have also spread so far: and on the other hand, if he first perceive the disorder in the mouth, let him next examine

the head on the outside, to distinguish whether it be the Garget, or the first stage of the Murrain.—We are to suppose it the first of these Cases; and that he finds the eyes starting, enflamed and swelled; the lips hot and swelled; and perhaps the under part of the neck, for sometimes that joins; and he will also perceive the tongue to be very much disordered. This in the present case is a very essential point; for the tongue is usually the principal seat of the distemper.

Let the upper and under side of the tongue be searched carefully, and probably there will be found one or more blisters on the top or sides; or a lodgment of matter under it: sometimes both.

These blisters must be cut, and the point of a lancet or fine knife must be thrust into the sore or swelled part underneath.

This done, the whole tongue is to be washed several times with sharp vinegar mixed with salt, and rubbed with a clean cloth; by this means the foul and offensive matter will be let out.—Then the creature must be kept to the following course of medicines.

First let him be largely blooded.

Then mix together a pint of Ale, three quarters of an ounce of Venice Treacle, a quarter of an ounce of Anniseeds in powder, and two spoonfuls of the juice of Rue: this is all to be heated and given at a dose; and it must be repeated morning, noon and night.—Let the creature be kept warm, and let his drink be wa-

ter, that has been poured hot upon a good quantity of the herb Agrimony, and let him have it warm.

I have seen those who were impatient with this course, give a purge in a day or two, but I never knew it succeed. Many have died while it was operating: and on the other hand several have recovered by a careful perseverance in this course, which have at first seemed to afford very little prospect of it.

C H A P. XXII.

Of the Murrain.

THE Murrain is the highest degree of these distempers, and the worst that can fall upon the Cattle of this species. What we call the distemper among the horned Cattle at this time, is the Murrain distinctly and properly so named.—It is an inflammation of the whole passage thro' the body from the mouth to the farthest extremity of the guts; and it is attended with a very bad state of the blood. It sometimes arises from very unfavourable weather; the drinking bad water, and being reduced to feed upon rank coarse grass; but the general origin of it is in the air, which there is no ac-

counting for. Some Cattle are, by the state of their blood and humours at that time, more exposed to receive the pestilential Vapours than others; but all are exposed to it; and when it has once taken place, it spreads by absolute and plain contagion.

This is the cause of its being terribly destructive in some Counties, and scarce appearing at all in others; and to this it is owing, that wherever it gets footing it spreads and continues.

There is no wonder that creatures standing near one another receive the contagion with the breath, which is sent out in the respiration from the others; especially as the temperature of the air favours the spreading.

Upon this principle we see the wisdom of the Legislature, in forbidding Cattle from infected places to be brought into Counties where the disease is not: and this gives the Farmer the first hint of his proper conduct.

As soon as he perceives this terrible disorder upon any one of his Cattle, let him separate that from the rest, and take care of all.

The first step is to bleed largely; and this should be extended to the sick and the well. In respect to the sick, it is the proper step to abate the inflammation; and as to the rest it may be sufficient to prevent the breaking out of the disease upon such as would otherwise have had it, from some slight degree of infection communicated before the separation of the sick; or if it do break out upon them, they will have it more favourably.

In another sense also it is very proper; we see that the air is at these times full of the pestilential matter, and that some Cattle do and others do not receive it. Those whose blood is in the greatest state of inflammation are naturally most liable to it; and the bleeding is a way of taking off that condition of the Mass.

The Cattle that are separated by way of preservation need no farther care after bleeding; unless the disease appear upon any of them. In that case such as are taken with it must be separated from the rest; and this is the manner of treating them.

As soon as they have been blooded, let a quantity of Vinegar be made hot, and a little salt dissolved in it; and with that let their tongues, mouths, lips, and teeth, be thoroughly washed.

Beat in a marble mortar half a dozen large heads of Garlick; press out the juice, and add to it an equal quantity of Tincture of Myrrh.—Set on half a pint of ale to be hot, and put to it a quarter of a pint of this mixture. When it is all hot together pour in two spoonfuls of Tar, and then immediately give it to the creature.

The Tar will not mix with the rest, but it will go down with them.

Let this be repeated once in four hours; and if there be no amendment the first day, let the creature be blooded again the day following, and the same course continued.

I have seen many other medicines tried, indeed almost innumerable; for of all herbs and drugs that the old Woman and the Doctor have

ever recommended in pestilential distempers, not one has been omitted on this occasion.—

The disease is in itself so terrible, that it would be falshood and folly to boast of vast success from any: but this we can assure the Farmer, whose condition we most sincerely pity when under this visitation; that of all the medicines that have come to our knowledge this has succeeded best. Many have been absolutely recovered by it, when all who saw them shook their heads, and supposed them lost.

Beside the great value of this as a remedy for the disease when it is come on, there is nothing so good as a preservative against it.

For this reason, when some Cattle of the farmers are taken ill, and are separated from the rest; and when, one after another, several of those set apart fall into it, the whole number of them should be preserved if possible from the same fate, by taking largely of this medicine.

The Farmer will not grudge his trouble when he sees the benefit that may arise, and when he considers the danger from which he is defending them.

They should all have a dose night and morning for ten days after the separation from the sick.

C H A P. I.

Of Sheep, and the several Breeds of this Country.

NEXT in value and consideration to the larger of the horned Cattle comes the Sheep; an article of vast concernment to the Farmer; cheap in the purchase; easily fed; and returning a great profit by many several ways; even its dung upon the land often paying for all it eats while fed upon it.

We have already advised the Farmer in the choice of his larger Cattle, to proportion their kind to the degree of richness in his land; it is not the fortune of every Husbandman to labour upon a fruitful soil: but the worst is not without its uses; and Sheep are a stock for such as will not support the larger kinds.—We see them thrive upon the most barren downs; and the Farmer will always find them ready to fatten upon such grounds as will not keep the other kinds alive.

As the Oxen of England are of very different breeds, tho' all the same in kind, so it is with the Sheep, which differ extreamly according to the several breeds in different places; and are therefore suited one to one kind of land; and another to another.

We shall advise the Husbandman to great caution, in the stocking his Farm with Sheep: and this under two heads, first, with respect to the breed, and secondly, for his choice of the creatures themselves; for there are, in every breed, many that are much finer than others, and these he should chuse. Half the profit that might be made by this part of the Husbandman's stock, is lost by carelessness in the first choice, and in the following management: but an error in the first choice is the most fatal, because it is irrecoverable, except by beginning over again. We shall therefore consider that, and laying before the practical Husbandman the properties and particular uses of the several different breed of Sheep that we have in England, shall advise him in his choice according to his main design, his best advantage, and the nature of the land he has to stock with them.

With respect to the fineness of the Wool, there is a small breed, distinguished by their black face and thin coat, that exceed all others. They bear but a small quantity in comparison of many, but the quality of it makes amends. These are easily known by sight. They were first rais'd in Herefordshire and Worcestershire. And for that reason are known in many places by the name of the Herefordshire or the Worcestershire breed. A dry, barren, and exposed pasturage will very well feed this kind, for they are hardy; and the shorter the grass on which they feed, it is observed the finer the Wool.— They are also excellent for the table, the joints.

being small and full of a fine gravy. We see this kind kept in many parts of England, in gentlemen's parks and lawns, and they every where make a pretty appearance.

The kind most opposite to these are a large, tall, and heavy-loaded Sheep; these have strong limbs, and a stout gait in walking: they carry a great deal of Wool, but it is coarse.— These were first bred in Lincolnshire; and in some of the adjoining Counties; and are fond of living in salt marshes. They have been taken into many parts of the Kingdom, to other ground, where they do not keep entirely to their own nature: and yet are called from the place whence they were brought, the Lincolnshire breed.

The flesh of these is large grain'd, but moderately tasted, and no where very much esteem'd. However, as they are observed to succeed better than the other breeds, in places toward the sea, it may be proper for the Husbandman who has land in such a situation, to take some of them: though not for his whole stock in this kind.

Thirdly, there is a breed between these two kinds, which in general should be prefer'd to either. This is a large, tall, and strong Sheep, of the best shape of any, and having the deepest coat of Wool. This was originally fed in several of our midland Counties, and has thence been called by some the midland breed; and by others, from some particular Counties famous for them, the Leicestershire or Northam-

tonshire breed. The Wool of this kind, tho' not altogether so good as that of a small black faced Sheep, is greatly preferable to that of the Lincolnshire breed; and the quantity is so much greater than that of the smaller kind, that it very well makes amends for its inferior quality.

The flesh of this Sheep is the common Mutton, not in any thing particular for goodness or badness: and it will do very well upon the common pasture grounds, and thrive upon every common kind of food. For these reasons it is fit that these Sheep should be most generally bred.

When the Husbandman has very poor pasture grounds, let him take the Herefordshire breed; and when he borders upon the sea-coast, or upon the shores of large salt water rivers, let him prefer, in part at least, the Lincolnshire kind: but when he has none of these particular reasons to byass him, let him prefer this midland breed to any other.

To these three, which may be call'd the general breeds of Sheep, I shall add a few words on two other kinds.

The Sheep bred in the Northern parts of this Kingdom, are a large and big bon'd sort; they approach to the Lincolnshire kind in shape; but their Wool is harsh, rough, and hairy, these are called by some the Yorkshire breed.

Their flesh is inferior to that of several other kinds, as well as their Wool; but they have an advantage over the others, in that they will

stand the coldest weather, and take care of themselves where some of the tenderer breeds would be lost. This may recommend them to the Husbandman whose lot has thrown him far North, where the other kinds will not thrive; but he should not introduce them into his farm in any other situation, for they are less profitable than any others.

The last kind, or breed, to be mentioned, is in a manner peculiar to mountainous Countries; and is most frequent in Wales. It may therefore be called the Welch breed.—This is a small, but well-shaped Sheep; and so hardy that it will live any where. The flesh is excellent for the table. But the Wool is not only small in quantity, but is the worst produced by any breed of Sheep in this Country.

The Husbandman will see by this account, that it never can be his interest to admit this breed among his stock, unless compelled to it by the particularity of his situation. The little black fac'd Sheep of Herefordshire has the same advantage in the excellence of its flesh; and it has, into the bargain, the finest Wool in the World. Therefore it is highly to be prefer'd, where it will thrive: and it will do on very poor and very exposed ground. However, if at any time the Farmer finds his pastures so poor, so exposed, and miserable, that they will not support this kind, all he has to do is to call in the other, or Welch breed, which will live any where.

C H A P. II.

Of the Choice of Sheep.

HAVING laid before the Husbandman this account of the three principal different breeds of Sheep in England, and the two other kinds that are, in a manner, particular to certain places, the next part of our care must be, the instructing him in his choice, not only of the breed he shall fix upon, for the grounds of that choice have been laid down already, in their several characters ; but of the particular creatures he shall fix upon in the breed that is most suited to his purpose.

But to this particular let us premise a few words upon his general choice, that is, as to the breed. He sees here five several kinds of Sheep, some large, others smaller ; and some yielding a greater, some a smaller quantity of Wool, which is also on one breed fine, and on another coarser. He has his choice given him among all these, for we suppose him not yet to have begun stocking his farm with this article: it would be natural for him to prefer at once the finest kind as most profitable ; but let him not only remember, but strictly observe what we have just laid down, that every breed will not suit every pasture.

He has now seen what are the kinds of Sheep: let him examine what is the nature of his land; and when he has impartially consider'd this, let him fix upon that breed which will thrive best on that kind of pasturage he has at his command, for this we have expressly told him with respect to each; and let him then purchase for his farm that breed which he sees will be most suited to thrive on it.

This he may be assur'd of, and he may extend the rule farther than barely to his Sheep, that he will have more profit from the very worst kind that shall thrive upon his land, than he possibly can from the very best that shall starve upon it.

One thing farther is to be noted before we come to the particular choice, that is, the difference of the land, which he is to bring them to from that whence he purchased them; this must be in this respect, as has already been caution'd upon other articles, always in favour of the land to which they are brought; for any breed whatever will decline upon being brought from a richer pasturage to a poor one.

Let the Farmer therefore see that he buy not only a kind suited to his grounds; but that he buy them from a worse land than his own, because upon that will depend their immediate thriving.

Having thus settled the general points, let him proceed to the care he is to use in the choice of each particular Sheep.

Whatever breed they are of, let him observe that what he purchases are stout, hearty, well made, and big boned: let him see that the wool of whatever kind or depth, be soft to the touch, and seem fatty in the handling; and that it be clean and well curled.

Sheep of this condition, whatever breed they belong to, always bear the largest quantity of Wool according to their kind; and these are marks also that make them bring a price at market. The Butcher has his rules for judging as regular as the best Farmer, and these are the things after which he principally enquires to settle the creatures value.

In the last place, we are to give directions for the choice of Sheep to breed. This is a very material article, and must be well regarded. Let the Farmer chuse his Ram by these marks; let him be young, handsome, and well shap'd, of whatever breed, see that his Wool be clean and grow well; and let the skin underneath be of the same colour. Let his body be large and long; his forehead broad, round and rising.— Let his eyes be large and of a cheerful aspect, and his nostrils strait and short.

The Sheep without horns, which are called the polled breed, are accounted the best breeders; this is establish'd upon so long and repeated an experience, that the Farmer needs not doubt it.

In the choice of the Ewe for breed, let her neck be large and upright, naturally bending like the neck of a Horse. Her back should be

broad, and her buttocks round : her tail should be thick, her legs small and short ; and her Wool should be thick and deep, and should cover her every where.

Of all things let the purchaser take care that they be sound, and, to know that, let him examine whether any of the Wool be wanting: let him see that the gums be red, and the teeth white, the felt loose, but the Wool firm, the breath sweet, and the feet not hot.

With respect to the age, two years old is the best time to have them at.—They will bear good Lambs till they are seven years old : and their age is to be known by their mouth. When they are one year they have four ; when three year, they have six ; and when four, they have eight : after this their mouth generally begins to break.

By this the purchaser will be able to guess at the age of his Sheep ; and, as to their condition, nothing shews it more than the dullness of their eyes, and the looseness of their Wool.—If these marks be upon them, let not the Farmer purchase them by any means, for they will never stand.

[C H A P. III.

[*Of the breeding of Sheep.*

THE Rams and the Ewes being chosen for breeding according to the foregoing directions, the Husbandman is next to consider what will be the best time for putting them together. In this, as in other respects, let it not appear that I lay more upon his mind than I need. It is true that a great deal more care is here recommended, than usually is taken by Country people on most occasions; but not more than is proper or requisite. The principle on which I have set out in this treatise is, that the Husbandman by industry and knowledge of his business, may obtain much larger profits than the common run of persons in this business are content with; therefore although less care and less foresight than is here recommended may do; yet he who uses the most will have the largest gains. I expect my Farmer in every article of his business, to consider the event before he fixes upon the means; and always to have the end in his eyes when he is about to make a beginning.

Thus in the present instance, before he puts his Rams and his Ewes together for breeding, I advise him to compute the time of their go-

ing with young, and so to know when his Lambs will be brought forth. When he has computed this, let him see whether it will be a convenient season for him; and which will be best. Let him consider at what time of the Spring his grass will be fit to maintain the Ewes and their Lambs, and then put the Rams and their Females together so long before, that will bring the young out at a proper time.

Let him consider whether if they fall early he shall have turneps to support them till the grass comes; for I have often seen very great mistakes in this reckoning: and many a time the Husbandman, for want of due care in this respect, has lost both his Ewes and his Lambs, for want of due food.

The prudent and considerate Farmer is to take care before he puts his Sheep for breeding, he is sure not only of a support for the young and their Dams when requir'd; but that it be a sufficient and good food for them. That which will keep them alive oftentimes, will not be sufficient for their thriving. There must be plenty of what is good in its kind, for if there be a defect in either quantity or quality, the Lambs will be stunted at first, and this is an accident they very difficultly recover afterwards.

The time of the Ewes going with Lamb is 20 weeks, and the best season of the year for them to yean is, toward the middle of April; except where there is very forward grass or turneps.— But if on any occasion from the circumstances of the Farm, or any particular consideration, it

is necessary to have them yearn much earlier, they may be put together so as to come in January or February.

In this case there will require a great deal of care to be taken of the Lambs for some time. All Lamb are very tender when first brought forth, and if they are not tended, the Magpies, and other Birds will pick their eyes out; but the coldness of the season keeps such as fall in January or February tender and weak much longer than those which are brought forth at a more advanced time in the Spring; and therefore a nicer care is requir'd to breed them up; and it must be continued a longer time than on the other occasion.

As to the land to breed Sheep upon, when the Farmer has variety, and can take his choice, let him observe these several qualities in the different kinds, and conduct himself accordingly. A rich pasture breeds well shap'd and tall sheep, according to their kinds; and such as have a short grass breed a lower but well set Sheep. Those which are bred in mountainous or woody places, are commonly small limb'd and low.

In general, dry pastures are the fittest for this purpose: all wet grounds, and such as are liable to be overflow'd, being hurtful; excepting only the salt marshes, which, for the proper kinds, succeed very well.

The Farmer should keep all this in mind, but at the same time remember, that these rules are subordinate to those more general ones,

which have been deliver'd already. The breed of his Sheep is the great article of consideration in respect of their size, and he has already been inform'd what breeds suit what lands: those more essential considerations being kept in mind, these lesser ones are of great use.

Let the Farmer who is about breeding of Lambs, save the grass and weeds that grow in the lands he designs to fallow in Winter, that is, from Christmas; and let him turn his Ewes and Lambs into them in March. If there be a mild Winter, this will be a great help to them.

When Sheep are to be turn'd into wheat or Rye to feed, the Farmer must take care it be not too rank before they are put into it, for in that case it gives them purgings, and other complaints.

No Cattle whatsoever should be fatted while they are going with young, for nothing is more dangerous to them; they should therefore be kept upon a moderate, or rather poor pasture all the time they run breeding, except the three last weeks. This is a rule to be more carefully observ'd with Sheep than any other. If they be fed too high the whole time, it will go hard with them in yeanning; but if they are not put a little into heart before they come to it, they will want strength; and they will also want milk for the support of the Lamb.

The proper time of weaning a Lamb is at 4 months old: but in general there need no care or caution to be used at all. In most places where things are properly manag'd, nature does

this, and the owner knows nothing of it; in some pastures it is also the preservation of the Lamb to keep sucking.

When the Farmer has plenty of good grass, and his Rams always run with the Ewes, he need not give himself any trouble about the weaning of the Lambs. The Ewe will in this case go to ram at a proper time of her own accord: and she will then become dry, and the Lamb will be wean'd naturally.

In such pastures as are subject to give Sheep the Rot at certain times, it is always best to let the Lambs run by the Ewe: the longer the better. These tender creatures are more ready to come to harm than the full-grown ones in those unsound places: and sucking is the best preservative against it: for they are seldom found to fall into that misfortune while they have milk.

If the farmer have suspicious pastures, and finds that his Lambs want milk, it is best to sell them at once to the Butcher; for it is not the running by the Ewe that will preserve them, she can be of no service against such an accident, if she wants milk for their full support.

Those he Lambs that are intended to be bred as Rams, should be separated from the rest, and the others gelt in time. The sooner this is done the better: for every creature bears this operation best while it is tender, and is with the Dam.

If this operation have been neglected at a proper time, it must be done toward the end of

September, at which season it is best to separate the breed for this purpose, and see it be done perfectly.

C H A P. IV.

Of the sheering of Sheep.

WE come now to a very considerable article in the value of Sheep, that is the Wool; and this, like every other part of the Husbandman's profits, may be enlarg'd greatly by due care and management.

There are two articles in the condition of the Wool which enhance its price. These are fattyness and cleanness. And it is in the owner's power to give it these in a much greater degree than they otherwise would be, by his care and attention. The first will be increased by the time of shearing the other by cleanlyness.

The fattyness of the Wool will never give it any value, unless it be at the same time clean; and the cleanness will discover its imperfection, instead of enhancing the price, if it be not fatty.

This fattyness of the Wool is owing to the Creatures sweating, and therefore there must be some hot weather past before it is shear'd, that it may have sweated well: not once or twice, for that will answer no purpose: but several times for days together, that the moisture may have lodg'd itself about the Wool, and in a manner oiled it so, that the necessary washing of the creature for cleanness, shall not be able to carry it off.

Unless the Sheep have sweated well before the washing, that will do harm equal to its good, for as much as it increases the price by cleanness, it diminishes it by taking off the fattiness. It is very necessary Sheep should be well wash'd before they are sheer'd: but the Farmer is to know at the same time, that unless they have well sweat in their wool first, this will hurt it.

Upon this foundation depends all the art of Sheep-shearing. The best season of the year for doing it is toward midsummer. But let the weather determine, and let not the Farmer be carried away by the name of any day, or month, against the use of his reason.

June has been commonly made the month for Sheep-shearing; for this plain reason, that at this time of the year there commonly has been some hot weather to sweat the Sheep; and there follows hot weather after it. But as this is the reason why June is proper, if any year the season prove very cold in the first part of Sum-

mer, let him defer it till July; and, on the other hand, if very hot weather come in early, let him go to shearing in the end of May.

In general, if the end of May be hot, he is to begin early in June; and if the hot weather have not come in till the beginning or middle of June, he is not to shear his Sheep till the latter end of that month. And in this manner let him who would succeed well in the Husbandman's business, conduct himself in every article. Let him know the practice of others according to the common rules; but let him examine the reason of it in every article; and while others follow it blindly, let him pay his submission to it with discretion. I would not have him set himself up as an opposer of the common methods, unless where they are palpably wrong; but understanding their origin and foundation, he will often find it convenient to depart a little from them; and will always find the advantage of that liberty when it is founded upon reason.

When the Husbandman has on these principles settled the time of shearing his Sheep for that year, whether it be the end of May, the beginning, middle, or end of June; or the first week in July: for it ought not to be later than that for many reasons; the next care is to prepare for it by settling the time of washing them, and giving them opportunity to dry themselves clean.

For this purpose the place of washing is to be fix'd upon, and a piece of clean and dry ground

in which they are to run till they be dry'd, and where they can't get fresh dirt. For convenience sake this piece of ground, and the washing place, should be as near one another as may be. So if the Farmer have his choice of two or three such places, let him prefer that which is nearest the water; and if he have but one, and have good convenience of water, then let him make the washing place in the spot nearest of all to this ground.

Though it is very needful that the Sheep be wash'd before it be shorn; yet it must not be shorn while it is wet; and if suffer'd to run at random afterwards, the washing would not be of much effect.

The whole matter, which is very plain and easy, being thus understood, and all things ready, let the Farmer proceed to the first article, the washing of his Sheep.—Let him see that this be done thoroughly and carefully. There is a way of flighting business in such a manner, that it might as well have been let alone; and this is too common in the article of washing of Sheep, which is a thing very troublesome to do well; and that easily hides faults, for if the farmer does not see that it be done well while they are about it, he will not be able easily to know afterwards, whether it be well done or no.

The presence of a master is always useful while servants are employ'd for him; but in no article more than this, for cleanness will add considerably to the price his Wool shall fetch.

When every Sheep has been thus carefully, thoroughly, and well wash'd, let them be all turn'd together into the piece of ground designed for their reception, and there be left to run till they are dry. This, according to the weather, will take two, three or four days, rarely more, for the season is seldom very unfavourable at that season of the year.

All things being now ready, let the shearer get to work, and 'tis worth the Farmer's while to take a great deal of care to have one who understands his business; for an ignorant or careless fellow at this work, may do his master more damage in one day, than a month's extraordinary wages.

In this let him over-see every thing with his own eye, as in the washing; and if he perceive any sheep half wash'd when it comes to the hands of the shearer, let him send it to be washed over again.

Let the Farmer order his shearer to be careful not to hurt the sheep, and let him have his own eye over him, that he do not cut them, or prick them with the point of his shears, for the flies will immediately take advantage of these wounds, and torment the poor naked creatures to madness. Finally, let him see the wool be carefully taken off, and well wound up.

It is a very good custom that some have, of shearing their Lambs together with the Sheep; although others very much condemn it. I would have the Farmer never fail to do this; but then

he need not be very strict and exact about it all over. The principal care is to shear them well behind.

Before they come to be shorn it is very necessary to cut away the wool of their tails, and just behind, that the dung may not hang on it, which makes the creature sore, and brings the flies in the same manner as a wound with the shears.—When they come to be shorn they should be cut close behind; but very little before.

Sheep do much damage to their wool by lying in dirty places, which they often will do, for they are not naturally a very cleanly animal, as well as in their running in the day time. For this reason the wool of the same breed of Sheep, is much finer in those Counties where they house them in the night, than in other places. In Gloucestershire, and some of the adjoining Counties, they house the Sheep always at nights, and litter them with clean straw. The expence of this is very well paid by their dung, which, together with their urine mixing among the litter, enrich'd also by their sweat, and the fatness of the wool, makes a very fine, rich, and precious manure.

We have treated largely of the use of housing Sheep, under the article of their dung, in its place. The method there prescribed of throwing in sandy or other earths, to be enrich'd by the dung and urine of the animal, is better than this of straw, when the article of manure only is

considered; but taking the wool also into consideration, this by straw is greatly preferable.

'Tis from the consideration of these several methods, practised in different places, and weighing the advantages of each, that the judicious Husbandman encreases his knowledge; and his profits will always be enlarged in proportion.

From what has been said on these heads separately, and in their proper places, he will now summing up the whole together, be able to determine upon a conduct in the management of his sheep, which altho' built upon the practise of different Counties, in separate articles, is preferable, upon the whole, to any one of their methods singly.

Thus if he use the cover'd fold, for the sake of raising a quantity of manure with sand and other ingredients, during the rest of the year, he will do well to throw in clean straw, by way of litter, for the four or five weeks before their shearing. This will give him a considerable advantage as manure, if not equal to what he gets the other way, and what he loses in that respect, he will gain with encrease by the fineness of the wool.

Upon this principle also the Husbandman may very reasonably be directed to have a kind of cover'd fold, ever so slight, on the ground where he turns in the sheep, between the time of washing and sheering. Let him strew this with clean straw, by way of litter; and see the sheep all driven into it at night. This they will

very readily do, because they will feel cold after their washing; and by this means, lying clean and dry, they will keep the wool very nice for the sheering. Nay there is a cleanliness in the nature of straw that will be a great advantage, for they will rub themselves upon it to a clean bright hue in the wool, which it will not have any other way.

C H A P. V.

Of the breeding up House Lambs.

THE price of House Lamb, at early seasons, is so considerable, that it may be very well worth while for the Husbandman who is situated near large towns, or where there is a demand for it, to raise some for this purpose.

To this end three things are principally to be considered.—First, to have a proper kind of Sheep; secondly, to put the Rams and Ewes together at a right season, that the Lambs may fall early; and lastly, to provide proper pens in an House for the receiving and nursing up the young; for their tender bodies require a great deal of care at such unnatural and severe seasons.

There is a kind of Sheep of the midland breed, but a little smaller than what we commonly understand by that name; otherwise very like those of the Leicester and Northamptonshire kinds; these are remarkable for their naturally Lambing very early. If left to themselves they will bring forth about the middle or latter end of December; and therefore, if properly put together by the Husbandman, who understanding the benefit of early Lamb, and computing the time, contrives accordingly, they will come somewhat earlier. These Lambs brought forth in the dead of Winter, may be easily rear'd at home, and will bring a price that will very well answer the trouble.

This particular kind of Sheep is bred principally in Hampshire and Wiltshire; and is known among the common people by the name of the Wey-hill Sheep.

The Husbandman who will proceed upon proper principles, is always to prepare in time for every thing. When he finds from his situation and circumstances, that he may have a demand for House Lamb, at a good price; and that he has conveniences for raising it, let him take his opportunity to buy some of these Wey-hill sheep at the best market, and be particularly careful that they are, in every respect, sound and free from blemish: chusing them severally, the Rams and Ewes, according to the general direction laid down here for that purpose, which answers for one kind of Sheep as well as another.

Being provided with a proper number of these Sheep, let him not leave their time of breeding to chance, but keeping them separate, till a proper season, then put them together, that they may copulate in such time as to bring forth their Lambs at the season he desires.

After this no farther care is necessary than that the Ewes are fed in a pasture not too rich, for the greatest part of their time; but about three weeks before their Lambing, they are to be brought into a richer feeding: and as the time of their bringing forth is very exactly known, let there be due care taken of them, and of the Lambs as they fall, that neither are hurt by the severity of the season.

The Sheep being thus carried on to their time, and the Lambs brought forth, the last care is the bringing them up for the service of the table; or, according to the Farmer's reckoning, for the purchase of the Butcher.

A great many arts are used to this purpose; and a great number of different directions have been given about it, by those who have pretended to have great knowledge; but the whole may be delivered in a few words, and the Husbandman who shall set about this, upon the principles of good sense alone, will find that most of those cautions and curious directions that have been so elaborately delivered, might have been spared.

The whole care consists in two articles, the keeping the Lambs warm, and the feeding the Sheep in such a manner, that they may be able

to supply them with a rich milk, that will fatten them.——There can be no great difficulty, and certainly no mystery in this, so that it is idle to pretend to secrets about it; and more idle in any to deter the Husbandman from it, under pretence of his not understanding how to do it. Let him set about it with these precautions, and look to the Lambs himself with due care, to see they are warm and clean; and feeding their Dams as he ought to do, he cannot fail.

The severity of the season would destroy the Lambs, if they were left to ramble about with the Ewes; and the scarcity of food, at this time of the year, would make them unable to fatten them by their milk, if they were not provided accordingly; but good food will make rich milk, and a due portion of food will yield it in due quantity. This is all that is needful; and all this may be brought about in this easy manner.

Sometimes before the Ewes are expected to bring forth, let proper pens be built up for them, in an house that is warm, but not shut up close, for if they have not air they will not thrive with any food.

As soon as they are brought forth let them be carefully put into these pens, and from that time watch'd and tended, that they may be always warm, dry, and clean.

We have already directed that the Ewes, toward the time of their bringing forth, should be put into a richer pasture than that they had

run in before; this will provide them a stock of good milk, and now they have Lamb'd, this is to be enlarged and enriched, by giving still better food.

The best food for this purpose is turneps; but where they are not in readiness, the Ewe, beside her rich pasture, must have at times, hay, bran, and oats given her.

It is fit the Husbandman should know what to do, in case of a deficiency of what is proper, but these other supplies do not enrich the milk in the manner of turneps: therefore he who proceeds upon our prudential and careful principles, must not fail to have turneps for the occasion.

The Ewes are to be brought into the house three or four times every day, to suckle the Lambs: and in this manner, as those young creatures are kept very cleanly and comfortably, and feed to their full upon rich milk, and upon nothing else; they will fatten quickly, and their flesh will naturally be exceedingly white and delicate.

The whole art of this profitable part of the Husbandman's business, is comprised in these few articles. The Ewes being well fed, have plenty of rich milk, and the Lambs sucking to their fill, and being kept quiet, fatten upon it freely. As to the difference of season they feel nothing of it: for so they be kept warm, it matters not to them whether it come from the Sun, or from their comfortable shelter.

Having mentioned, in its place, the folding of Sheep for the benefit of land, arising from their dung, we shall here add one caution on that head, respecting the creature itself, and then close this article.

The advantage the Land receives from the folding of Sheep is very obvious; but let the Husbandman take care that he does not lose more by the damage he does his Sheep by this practice, than he gets by the enriching so much of his land.

There is nothing that tends more to give Sheep the Rot, than this method of folding them, when due care is not taken in the doing it.

The Sheep are to be put into these folds at night, in Summer, but let the Husbandman take care only to do it in good weather; otherwise it may cost him very dear. Let him see that they are not turned out in the morning, till the Sun has been some time up: and let him take care they are driven to a good feeding place, for otherwise, being hungry they eat any thing; and thus, between cold nights and bad food, they get the Rot and perish.

Of the Diseases of Sheep.

C H A P. I.

Of the Fever.

THE Farmers know very well what they mean by the Fever in their Cattle, and the name is not without just reason. The Fever in Sheep is an inflamed state of the blood, disordering the eyes and mouth, so that it is easily seen, and affecting the whole body of the creature, tho' not so visibly.

When the signs of a feverish disposition appear in Sheep, the Farmer must feel their feet; if they are hot, he may be sure he has guess'd right as to the nature of the distemper; and this is a needful caution, because there are other disorders that will give an inflamed look to the eyes and mouth.

The disease is often destructive in itself; and frequently it brings on other fatal disorders.

The cause is generally cold.——When only two or three are affected by it, the case is less desperate; but when many together, it is always the more fatal.

The first thing to be done is to remove the cause ; that is, to keep the Sheep in a warmer and more sheltered place.

In the heat of Summer the weaker among the flock will be sometimes rendered feverish, only by being exposed too much to it ; and in this case the first method is just contrary to the former ; he must drive them to shelter : in either condition they must be kept quiet, and must have wholesome sweet grass and fresh water. — Then the following remedies will take place :

First bleed the Sheep that are affected with the disorder, and afterwards give to each the following medicine with a horn.

Heat a quart of ale, and dissolve in it an ounce of Mithridate, add half an ounce of Virginian Snake-root, and one dram of Cochineal in powder. This quantity serves for four doses, and one of them is to be given night and morning.

If the Sheep be bound in its body, an ounce of Lenitive Electuary is to be mixed with each dose ; but if looser than ordinary, that is not to be regarded during the course of the remedies, for it will contribute to the cure. — The four doses usually are sufficient.

C H A P. II.

For a Purging.

WE have directed the Farmer to leave nature to her course when a purging comes on, with a Fever, in sheep; but when the Fever is abated, the purging must be stopp'd; and the same remedy that answers for this purpose, may be given in the same manner for such purgings as come on of themselves.

Boil a quarter of a pound of raspings of Logwood in two quarts of water, till but a quart is left; when it is near done, put in a stick of cinnamon.——When it is done, strain it off, and give the Sheep a quarter of a pint of it, with a horn, four times a day, till the purging ceases.

This seldom fails to take effect very kindly upon that kind of purging which was a symptom of a Fever, tho' it remains after it is over; but if on other occasions it does not stay the disorder, the following addition will render it sure of success.

To every dose of this add a quarter of an ounce of *Diascordium* without honey, and ten grains of Japan earth powdered; give the doses only morning and night when they are thus increas'd in strength.

C H A P. III.

Of the Tag.

THIS though an external disorder, yet naturally comes in here, because owing to the complaint last named.

It is a disorder of the tail beginning with filth and foulness, and ending in ulceration and very bad consequences.

The Tag is situated in an inner part of the tail: it consists of scabs and sores, very painful and wasting to the creature; and it is owing to the fouling of this part by a purging.

That Tag is always worst which follows a fever, because the inflamed state of the blood tends to encrease the disorder; and when it begins, during the continuance of the disease, the matter of the fever may chance to settle there. In either case two things are to be done; the first is, to stop the purging, that the stools may fall as usual; and the other, to clean the tail.

The last mentioned remedy, either in its weaker or stronger form, is to be used to stop the purging; and the tail being clipp'd, and the sore part laid bare, first wash it carefully with milk and water blood warm, and then with

lime-water.——After this turn the Sheep loose into a clean dry pasture.

Two days after look at it again, and, if not well, repeat the washing, and anoint it with grease and tar mixed together. Twice doing of this is generally sufficient for the completing of a cure.

C. H. A. P. IV.

Of the disorders of the Lungs.

SHEEP are very subject to be disordered in the Lungs, which is easily perceived in their breathing or by their coughing; nothing requires a more speedy remedy; for they grow incurable when it is neglected but a little time; and die as men in a consumption.

Change of air and pasture are essential to the cure of this disease; without this caution no remedies will take place; with it the following rarely fails.

The cause of this disorder, in whatever form it appears, whether in coughing, wheezing, or panting, in difficulty or shortness of breath, is the same. It is owing to cold; and it generally comes upon Sheep that have been kept in low grounds in wet weather.

First drive them into an enclosed pasture where there is short grass and gravelly soil ; and if possible, where there is spring or other running water.

Bruise a basket-full of leaves of Colt's-foot, and press out the juice.

Bruise in the same manner an equal quantity of plantain, leaves and roots together, and press out its juice. Mix these, and bruise as much garlick as will yield about a fourth part as much juice as one of the others. Mix all together, and add to them a pound of honey, an ounce of powdered Aniseeds, and an ounce and a half of powdered Elecampane ; give a quarter of a pint of this, warm, to every sheep that is affected, once in a day, and it will by degrees make a perfect cure.

Out of the whole flock thus affected, when the Farmer has taken thorough care in this respect, I have known that not one sheep has been lost. I write this from experience.

C H A P. V.

Of the Jaundice.

SHEEP are more subject than any animal whatever to obstructions of the Liver : and

this is generally seen in yellowness of the eyes, and a tinct of the same kind in the skin, when carefully examined.——Our farmers, in some places, call this the choler; or, as they speak it, the colour; it is properly a jaundice.

Drive the sheep that are affected with this disorder into an open pasture; and let the shepherd or person who has the care of them, have orders to keep them often in motion, but not to fatigue them; then prepare the following remedy.

Boil in four gallons of water, two pound of Fennel roots, the same quantity of Parsley roots, and twice that quantity of roots of Dog-grass, or Couch-grass, all cut small; when the water is very strong of them, and there is about half the quantity left, strain it off, pressing it hard.

Bruise in a mortar as much great Celandine as will yield three pints of juice, add this to the liquor, and lastly put in three drams of salt of Steel.

Mix all well together, and every day heat so much of it as will serve to give every one of the sheep that is ill a gill and half for a dose. This, with the forementioned directions of good pasture and water, and moderate exercise, rarely fails of a cure.

C H A P. VI.

Of Stoppages in the Throat.

WE have treated of disorders in the Lungs, and shewn the remedy; but the Farmer will yet find another disorder imitating the appearance and symptoms of these, which is only in the throat. The Sheep affected with this, wheeze and breathe with difficulty. It commonly arises from bad pasturage and colds.— The remedy is this; drive them into a higher ground and keep them warm; then give the following medicine.

Bruise a good quantity of Penny-royal, and squeeze out the juice. Put to a quart of this a pound of honey, and half a pint of sharp vinegar.

Give the sheep half a pint of this, blood-warm, every night.

Penny-royal is, by some, delivered as a general remedy for all disorders of Sheep; but this is very erroneous; nothing has been hitherto so little understood as the medicines proper for Cattle. What are here delivered, are in general, supported by experience; and that physician who has judgment to propose more remedies, and patience to see them try'd fairly; to approve and establish the best, alter and amend the others, and finally to publish the result of all, will deserve a statue, for the good done to his Country, more than all her heroes.

C H A P. VII.

Of Sturdyness.

THE disorder Farmers call by this name, is a kind of Vertigo or Giddiness in the head in Sheep. It rises principally from very rich feeding, and is often fatal.——The cure is this.

Bleed the Sheep largely, then give the following draught. Bruise some roots of wild Valerian, squeeze out the juice, heat it, and give a quarter of a pint.——Repeat this once in four hours.

When the Sheep is recovered, turn it upon the common, or into some barren hilly pasture; it will be kept from relapses by having but little food, and that perfectly wholesome. When this disease returns it is commonly fatal.

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C A A P. VIII.

Of the Wood Evil.

THE disorder Farmers understand by this name is a kind of Cramp: it seizes the legs of Sheep, and will often affect a whole flock at once.

The cause is cold and wet. The lying under the drip of trees in rainy seasons has often occasioned it, and thence it got the name of the Wood Evil.

The first care is to remove the sheep into a dry pasture, and then the cause being removed, proper remedies may take effect upon the disease, which would otherwise be incurable.

Boil in a large quantity of ale as much common Cinquefoil and hedge Mustard as can well be stir'd into it. — When the liquor is very strong, strain it off, and add a pint of juice of Valerian root to every gallon of the Decoction.

Give the sheep that are affected with the illness half a pint of this, in a horn, morning and night.

Boil in Vinegar a large quantity of the leaves of Hedge-Mustard, and with this liquor, hot, rub the legs of the sheep.

The trouble of this method must not dishearten the Farmer from observing it punctually, for the whole flock may be lost if it be neglected; and when they are once relieved, and in a warmer pasture, they seldom relapse.

C H A P. IX.

Of the Staggers.

SHEEP have this disorder as well as Horses, and it arises from improper food.— They are apt to crop the young shoots of trees when in their reach; and tho' many of these are wholesome, some are hurtful. It is found by experience, that the eating the Oak leaves and buds is particularly prejudicial; it binds them in the bowels, and frequently the Staggers follow.

The symptoms are much like those of the Sturdyness, described before, but more violent; and there is generally a trembling, at the same time, of all the limbs. The remedy is this.

Dissolve an ounce of Assafoetida in two quarts of water. Give the sheep a quarter of a pint of this, warm, every three hours; it commonly opens their bowels at the same time that it takes immediate effect upon the nervous disorder, and thus performs a perfect cure. Some of our Farmers put the Assafoetida into the ears of the sheep; but that is a very idle practice. The medicines are easily given them inwardly with a horn, and there is no other way in which any dependance can be placed upon them.

When the sheep are thus recovered, let them be kept out of the way of a return to the same food, and they will be in no danger of a relapse.

The Farmer will see by the several accounts of these most ordinary diseases incident to Sheep, that they are not so subject to them as many other creatures from a variety of unknown causes, but fall into them principally from a bad method of keeping. In general, low grounds are the most unwholesome; for they abound with wet, and they give birth to many weeds of a poisonous nature not found in others. And we see that woods are disadvantageous on many accounts; therefore let him be careful of his feeding, and he will have less to fear on account of disorders in this kind; and when they so happen, they will be lighter and more easily remedy'd.

C H A P. X.

Of the Scab.

THIS is a filthy disorder to which sheep are very liable; but as many of the others, before described, arise oftener from ill management than any natural defect, so this more than any.

Sheep kept on Downs, or in dry wholesome pastures, are very little liable to it; those which lie wet, or get under droppings of trees in bad seasons, are frequently affected by it in the severest manner.

When the wet falls upon their skins, and they are heated afterwards; but especially when they lie under trees and the wet falls upon them from the branches, their skins soon after grow scurfy, and in a little time from that there rise scabs in various parts of them: upon this the wool grows loose, and the sheep pine and become lean.

If it be a season for shearing, or that can be done with any degree of propriety, nothing is so good a step to the cure; if not, the same remedies must be applied without; cleanliness is the great article for keeping them well; and it is vain to begin a cure without it.

They must be washed every where in the foul places with soap-suds, made very strong, and used warm with a flannel or brush.

After this they must be turned loose in a clean pasture, and must be driven up again as soon as well dry'd, and all the fore parts must be well wetted with lime water.

In both these applications, the scurfy parts of the skin, as well as the scabby places, must be regarded; and probably the doing this three times, at two days distance each, will be a remedy.

If this fail, the parts that have been thus

washed and cleaned, must be anointed with a mixture of equal parts of tar and grease, and they will soon be perfectly well. No inward medicines are required in this case, for the complaint is only on the skin.

C H A P. XI.

Of the Red-Water.

FARMERS do not seem well to understand themselves in respect of this disorder; but in some places call an inward disease, and in others an outward one, by this name. The last is the proper meaning of the word, and it is a very dangerous disorder. Tho' it appears outwardly it is not entirely of the external kind, as the former; but the blood is always more or less affected with it, and consequently care must be taken accordingly, by inward as well as outward medicines, in the cure.

The great mistake has been the attempting it by outward remedies alone, and this is the cause why it has been found so difficult of cure.

The appearance of the disorder is about the breast and belly principally, but it will spread itself to other parts. It is an inflammation of

the skin that often raises it into blisters, and in those is contained a sharp humour, thin, watery, and coloured with blood. This is the occasion of the name, and this the disorder properly called by it.

Nothing must be done to strike it in, but the cure regularly attempted by amending the bad state of the blood.

First, the Sheep that are affected with it, must be separated, or otherwise it will be very apt to spread among them, and they must be put where there is sweet grass and good water, or the medicines will take little effect.

Mix half an ounce of flour of brimstone with an ounce of honey; work it well together, and then divide it into two parts. Dissolve one of these in half a pint of juice of nettles, and give it every day for a fortnight. This method observe with all that are disordered.

Slit the Blisters when they are full of this watery humour, and having let the matter out, wet the place with juice of wormwood.

After four days of this course, bleed them pretty plentifully; and then continue the same method till they are well.

C H A P XII.

Of the Foot-worm.

SHEEP are liable to the breeding of worms between their feet; but this, like the other accidents, is principally when they are kept in wet or damp pastures. It is very painful to them, and will make them pine away.

It is perceived by their frequently holding up one foot; and by their setting it but tenderly down.

In this case let the foot be washed clean, particularly between the toes, and there will be seen a little lump like a tuft of hair. This is the head of the worm. It is to be taken out with care, for 'tis of a tender substance, and if it be broke in the foot it will occasion an inflammation. The best method is to open the flesh on each side of it, and then, by means of a pair of knippers, to take it very gently out.

Then dress the wound with tar and grease melted together in equal quantities, and turn the Sheep loose.

It is better to put it into a fresh pasture; for if the same disorder returns, it is generally worse.

C H A P. XIII.

Of the Wild-fire.

THIS is a very violent inflammation, which appears in the manner of a Saint Anthony's Fire, upon the skin of the Sheep, in different places : and when it is discovered on one generally effects more ; often the whole Flock.

Our forefathers were superstitious on this occasion, they bury'd the Sheep alive with its feet upwards at the door of the fold ; and supposed this acted as a spell to drive away the disease. We do not inherit these errors. The method to be observed is this.

Such Sheep as are infected with it, are to be separated from the rest : then bleed them, and prepare the following external remedy. No other is required ; and it is singular in this disorder, that although more violent than the red-water, it does not at all infect the blood, so that nothing inward need be given.

Bruise a good quantity of the leaves of wild Chervill, and add to them as much lime-water as will make the whole very soft. When it is thus beat up together and perfectly mix'd, add as much powder of Fenugreek-seed as will reduce it to the consistence of pap ; then put it

into a pan, and set it in a cool place. Rub the sore or inflamed part carefully with this every evening, and make as much lie on as can be kept there; it will take effect during the time of rest, and is to be repeated as long as there is occasion.

C H A P. XIV.

Of Disorders of the Eyes.

SHEEP are often affected with colds falling upon their eyes, and almost blinding them; and, at other times, the same accidents arise without any visible cause. The remedy in either case is the same.

Press out the juice of great Celandine, and drop a quantity of it into the eyes night and morning.

C H A P. XV.

Of the Dropsy.

SHEEP are often swelled with water in their bellies; and this, if not regarded in time,

is attended with certain destruction. There are two ways in which it is lodged; the one is between the outward flesh and the rim; the other is within the rim.—In the first case, the cure is easy; in the other, nothing can be done.

The method, in the first case, is by a coarse kind of tapping.

An opening is to be made in the flesh, and a quill thrust in; this will give the water a free passage out, and the wound heals of itself, if the Sheep be otherwise tolerably healthy; but when the disease has been of long continuance, and the creature is emaciated by it, nature will not have strength to heal it; in that case, the Sheep is to be examined daily, and the wound dressed with grease and tar.

The creature must be put into a fresh, dry, and wholesome pasture, and then disposed of as soon as recruited: for this is a disorder that never fails to return upon any mismanagement or neglect in the keeping.

C H A P. XVI.

Of the Rot.

THE Rot among Sheep is like the Murra-
in among larger cattle, the most destruc-

tive of all the disorders to which they are liable, and the most to be dreaded by the Farmer. We have reserved it for the last consideration, that what has been premised concerning the other disorders, may have led him so far into the nature of animals, as to make him perfectly comprehend all that relates to this.

This disorder is contagious, like the Murra-in. Whenever it appears it usually spreads thro' the whole flock; and often over the whole neighbouring country.

Preservation from it is a point of as much importance as its cure; indeed of more, because the cure is very uncertain.

The causes of the Rot are various, but the principal is carelessness in the owner. Sheep that feed at large upon open commons, are much more subject to it than such as have shelter, and are taken due care of at nights; those which feed in the dampest grounds, are most subject to this, as to other diseases; and it frequently arises from a cold season and dribbling rains coming on soon after the shearing, These taint the skin, and bring on the disorder. Lastly, want of Food will occasion the same disease; and the eating such grass as is full of unwholesome plants. These we shall particularize in a succeeding chapter.

Such are the causes of this terrible disorder in its original appearance in many places; but the Farmer, beside these, is to observe that the worst and most common is infection.

Let him, at all times, take care to keep his Sheep out of the way of these original causes of the Rot; and he will find the same care will preserve them from most other disorders; and, beside this, when the distemper is any where near him, let him be careful to keep them clear and distant from all others.

Damp grounds are always dangerous in this respect: and in wet seasons especially.

In these wet times, the best practice is quickly to remove the flock to the upland pastures, and to give them some hay as a part of their food.

The happiest thing that can chance to the farmer in this case, is to discover the disease in time. The first notice of it will be perceived in the eyes; and therefore in a wet season, and especially at a time when the Rot is among the neighbouring Sheep, let him look into that part. When a Sheep is infected with this disorder; the white of the eyes looks dead and dull, and they have a weak faint Aspect; the creature is feeble, and his skin is foul; the wool is so loose that it comes off in handfuls with the least touch; and the gums will look pale and the teeth foul. He will be dull and listless in motion; and heavy, as if his legs were not able to carry him.

In this case, the disease is strong upon the creature.—Many are generally infected at a time, and the first care must be to remove them from among the sound ones; the distinction.

may be made by the rules we have just laid down; and the sick must be pent up in a close fold.

They must be allowed little water; and their food must be dry hay and oats. The best way of giving these, is by means of troughs placed all round the fold.

Bleeding, which is beneficial in most other disorders, is altogether destructive in the Rot. Some have try'd it; and what I write is in consequence of what I have seen as the result of their practice.

It has been observ'd universally, that Sheep fed in salt marshes never have the Rot. This put it naturally into people's thoughts to try salt as a cure; and we read wonders of its effects.

This also I have seen try'd, and sometimes with good consequences; but never with the great success that is boasted by many. Salt is a preservative against the Rot; and that is all we rationally learn from the cattle not being infected with it, that feed in the salt marshes; but it is not so certain a cure.

The best kind of salt for this purpose, is bay-salt; and the best way of giving it, is by beating it to powder, and then sprinkling it among the dry food. Tho' we do not advise the Farmer to rely upon it entirely, we shall recommend it, among other remedies, in this manner.

Bruise to powder an ounce of grains of Paradise, and four ounces of Juniper-berries dry'd; add to these two pounds of Bay-salt, and half a pound of Loaf-sugar, grind them all well together, and sprinkle some of this upon the Hay and the Oats that are given the Sheep.

Let this course be continued three days, and look from time to time into the eyes of the Sheep, and examine every other way, to see whether they mend or grow worse. If there be signs of amendment, let the same course be continued; if not, the following must be used. Steep four pounds of Antimony in two gallons of Ale, for a week; then give the Sheep this every night and morning, a quarter of a pint at a time.

Boil a pound of the roots of the common A-vens, and two pounds of the root of Master-wort, in two gallons of water, till there is not more than six quarts remaining; strain this off, and press it hard; then pour a pint of it into a pail-full of water that is to be given to the Sheep.

By these means, carefully managed, and under a good regulation in the articles of cleanness, dryness, and warmth, the Rot will be often cured: this is all that can be promised upon the most sanguine expectations; for there are times when the disease is so rooted, and when the temperature of the air so favours it, that nothing will get the better of its violence.

In the course of this method, if the Sheep have a distaste to their food, because of the salt and other ingredients mixed among it, they must be omitted for two or three feedings; and then given in less quantities; and if this take effect the other need not be used; if otherwise, it will be best to take the benefit of both together; the salt and other ingredients being sprinkled among the Food, while the drenches are given at the regular times.

F I N I S.



